

**City of Fairfield, California**

# **2005 Urban Water Management Plan**

For Adoption December 5, 2006







**CITY OF FAIRFIELD  
URBAN WATER MANAGEMENT PLAN 2005**

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**CITY OF FAIRFIELD  
2005 URBAN WATER MANAGEMENT PLAN  
CONTACT SHEET**

**Water Utility Information**

Utility Name: Fairfield, City of  
Address: 1000 Webster Street  
City: Fairfield  
State: California  
Zip Code: 94533

**Contact Information**

Name: Mr. Andrew Walker  
Title: Senior Management Analyst  
Phone Number: 707-428-7487  
Electronic Mail: [awalker@ci.fairfield.ca.us](mailto:awalker@ci.fairfield.ca.us)







**CITY OF FAIRFIELD  
URBAN WATER MANAGEMENT PLAN 2005**

**SECTION 1 – AGENCY COORDINATION**

**Water Code section 10620**

*(2) Each urban water supplier shall coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.*

**TABLE 1**

<b>Coordination with Appropriate Agencies - 2005 update</b>						
	<b>Participated in UWMP Development</b>	<b>Commented on the Draft</b>	<b>Attended Public Meetings</b>	<b>Contacted for Assistance</b>	<b>Received Copy of the Draft</b>	<b>Sent notice of intention to adopt</b>
<b>Other Water Suppliers</b>						
Vallejo	X				X	
Suisun City	X				X	
Benicia	X				X	
Vacaville	X				X	
Rio Vista	X				X	
Dixon	X				X	
SID	X				X	
<b>Water Management Agencies</b>						
SCWA	X			X	X	
<b>Relevant Public Agencies</b>						
Solano County FSSD				X		X
<b>Other</b>						
General Public			X			X
Public Library					X	
Posted on Internet					X	
Local Newspaper						X

**UWMP Preparation**

The City of Fairfield staff has prepared this 2005 Urban Water Management Plan update.

**Resource Maximization / Import Minimization Plan**

The City of Fairfield has engaged in coordinated planning efforts over the course of the past 15 years. Many of the water conservation planning documents for the USBR contracts and Urban Water Management Plans have been prepared with common consulting firms and coordinated



efforts. Key water planning documents that are in force at this time are the USBR Urban Water Management Plan (adopted in 2005), the Solano Agencies' Integrated Regional Water Management Plan (February 2005),

Extensive discussions were held with the Solano County Water Agency member agencies on the water supply assumptions for the State Water Projects supply and Solano Project supply.

The City of Fairfield has implemented the CUWCC BMP's in increasing efforts over the past 17 years in an effort to maximize resources and minimize the need to import water. We are party to several implementation efforts to extend water resources through our water conservation efforts. The USBR Urban Water Conservation Plan, the Urban Water Management Plans (1990, 1995, 2000, and now 2005), and Regional Water Management Plans (through joint efforts with other Solano County Agencies, and now the Solano Agencies' Integrated Regional Water Management Plan and are now participating in a Bay Area Integrated Water Management Plan).

Water exchanges and transfers are documented in the Solano Agencies' IRWMP. These exchanges and transfers within Solano County maximize local resources and minimize the need for additional new imported water supplies.

Internal coordination has come at several stages over the past years. The General Plan, adopted in 1992 and revised in 2002, provides for an annual water allocation plan. In 1993, the City passed a Water Efficient Landscaping ordinance. In 1994, the City adopted an Urban Water Shortage Contingency Plan after careful coordination with the Planning Department, and also prepared a Water Misuse Prevention Program, which was adopted by the City Council. Recently, the City has prepared a detailed water rights application which draws heavily from our conservation plans. Many of the components of this UWMP plan are based on the actions carried out over the past years of water conservation efforts in the City of Fairfield.



## SECTION 2

### 2.1 Appropriate Level of Planning for Size of Agency

The City of Fairfield has engaged in coordinated planning efforts over the course of the past 15 years. Many of the water conservation planning documents for the USBR contracts and Urban Water Management Plans have been prepared with common consulting firms and coordinated efforts. Key water planning documents that are in force at this time are the USBR Urban Water Management Plan (adopted in 2005), the Solano Agencies' Integrated Regional Water Management Plan (February 2005),

### 2.2 Service Area Information with 20 year projections

Table 2 shows current and projected population for the City of Fairfield service area. The Fairfield water utility service area includes Fairfield City and excludes portions of the Cordelia area and Travis Air Force Base.

#### Population – Current and Projected (Table 2)

	2005	2010	2015	2020	2025	2030/opt
Service Area Population	105700	117700	128300	134500	410200	145100

From ABAG Projections 2005

#### Climate Information (Table 3)

The average rainfall and average temperature information comes from the National Weather Service station 042934 for the City of Fairfield. The standard monthly average ETo comes from CIMIS stations 123 and 122 on the [www.cimis.water.ca.gov/cimis/welcome.jsp](http://www.cimis.water.ca.gov/cimis/welcome.jsp) web site.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
CIMIS 123	0.6	1.34	3.01	4.67	5.84	6.96	7.65	6.84	5.25	3.81	1.41	0.88	48.26
CIMIS 122	1.59	2.20	3.66	5.08	6.83	7.80	8.67	7.81	5.67	4.03	2.13	1.59	57.06
Standard Monthly Avg Eto													
Avg Precip.	4.95	3.98	3.0	1.30	0.52	0.17	0.02	0.07	0.27	1.21	2.86	4.12	22.47
Avg Temp.	46.4	51.3	54.8	58.6	64.2	69.2	72.5	72.4	70.5	64.1	53.9	46.8	60.4
Max. Daily Temp.	76	80	89	98	111	111	113	111	112	104	87	78	113
Min. Daily Temp.	18	24	20	30	35	37	40	40	39	32	21	17	17

The City borders the cooler bay area and warmer delta region – making summers 2 to 5 degrees cooler than inland Vacaville to the east and 2 to 5 degrees warmer than coastal Vallejo to the west.



The City receives 90 percent of the annual rainfall between October and April. Measurable rainfall occurs on 50 to 60 days per year under normal conditions. The normal growing season is 244 days. There are periodic high winds off the Delta and heavy clay soils often making irrigation difficult. The local climate is classified as semi-arid temperate. Fairfield has a mild two-season Mediterranean climate that is typical of the Central Valley in California. Cool, moist-winters and warm-to-hot, dry summers characterize this area.

### **Demographic and Economic Factors**

Other demographic factors affecting water management include growth issues in the I-80 corridor between the Bay Area and Sacramento. Solano County, similar to other surrounding counties in the area has experienced rapid urbanization in the last two decades. This growth is driven primarily by the rising cost of living in the San Francisco Bay Area, the availability of affordable housing in Solano County, and the proximity of these counties to both the Bay Area and Sacramento. The rate of population growth has averaged 2.0% over the past 10 years.

Economic growth factors affecting water supply include continued industrial growth in the food sector, which has been a water intensive use category.



## 2.3 Water Sources

The primary water sources for the City of Fairfield are the Solano Project, the State Water Project, and "settlement water" obtained through negotiations with the Department of Water Resources in 2003. The two projects deliver water from Lake Berryessa and the Sacramento River respectively. Although legally not State Water Project water, settlement water is derived from the yield of the State Water Project.

At present, recycled water is a minor source of City water supply, but is expected to grow into a significant supply in the future. Groundwater is not used in the municipal water supply of Fairfield and is not considered a viable component of water in Fairfield because of tidal inflows that impact water quality.

**Current and Planned Water Supplies – AF/Yr (Table 4)**

Water Supply Source	2005	2010	2015	2020	2025	2030/Opt
USBR Solano Project						
Fairfield Entitlement	9200	9100	9100	9100	9100	9100
SID 2 <sup>nd</sup> Exchange	7000	6900	6900	6900	6900	6900
SID 2 <sup>nd</sup> Purch. Opt.	9000	8900	8900	8900	8900	8900
SID '87 JPA	500	600	700	800	800	900
SID Non-Potable	1500	1900	2300	2700	3100	3100
Rancho Solano Irr	1000	1000	1000	1000	1000	1000
DWR State Water Project						
Fairfield Entitlement	13200	13200	13200	13200	13200	13200
DWR Settlement	11800	11800	11800	11800	11800	11800
Recycled Water						
Phase I	100	600	600	600	600	600
Phase II			600	1200	1200	1200
Phase III+				600	800	1000
Total Supply	52300	53000	54100	55800	56400	56700

State Water Project (SWP) water and settlement water are delivered to the City via the North Bay Aqueduct (NBA), a piece of the SWP. The NBA is 28 miles long starting from Barker Slough in the Delta and ending in Napa County. The Solano County branch of the NBA was completed in 1988. The State of California is the owner of the North Bay Aqueduct, and the state Department of Water Resources is the operator. The City obtains SWP water through a "member unit" contract with Solano County Water Agency.

Settlement water is available to the City during delta "excess" conditions and during "balanced" conditions when standard water rights Term 91 is in effect. Excess conditions occur when the SWP and the federal Central Valley Project are unable to control flow to the Sacramento-San Joaquin Delta. Conversely, balanced conditions occur whenever the two projects are in control of delta inflows. Term 91 comes into effect during balanced conditions whenever the projects are required to release stored water to meet delta inflow requirements. The City has determined that settlement water is a fully reliable supply because the City can schedule it to be fully utilized at least 9 years out of 10.

The City delivers potable water supplies through its pressurized distribution system. Fairfield's treatment and distribution facilities comprise two water treatment plants, 350 miles of pipe, 11



treated water storage reservoirs, and 12 pump stations. The capacity of the system is designed to be able to treat up to 49.2 million gallons per day and store up to 76.1 million gallons of water.

Wastewater from the Fairfield-Suisun area is treated at the Fairfield-Suisun Sewer District (FSSD). Due to requirements for discharge to Suisun Marsh, FSSD has produced tertiary effluent since the 1970s. In 2002, Fairfield entered an agreement with FSSD and Solano Irrigation District that provides the City with up to 12 million gallons per day of effluent for a recycled water supply. FSSD presently provides some recycled water to sites near the FSSD plant site for irrigation and industrial uses.

## 2.3 Water Sources – Groundwater

The City of Fairfield does not use groundwater as a supply source. Groundwater in our area is brackish and unsuitable for irrigation or drinking water use without prohibitively expensive treatment.

## 2.4 Reliability of Supply

The UWMP Act requires analysis of reliability for each of the sources of water supply. Table 5 summarizes the reliability of supply for all sources. The following tables provide reliability estimates for each water source independently.

Table 8  
FAIRFIELD WATER SUPPLY (ACRE-FEET)  
2005 Urban Water Management  
Plan

	<u>2005*</u>	<u>2010</u>	<u>2015</u>	<u>2020</u>	<u>2025</u>
Supply					
Average Normal Year	52,300	53,000	54,100	55,800	56,400
Average Single Dry Year	-	48,600	49,700	51,400	52,000
Average Multiple Dry Year	-	43,800	44,900	46,600	47,200

\* 2005 supply conditions reflect estimated actual because forecast is being made in late 2005. 2005 will be a "normal" year.

Table 8a  
RELIABILITY VALUES FOR CITY WATER SUPPLIES  
(Corrected Sept 2005)

	Solano Project	State Water Project	Recycled Water
<b>Current (2005)-Use actual</b>			
Average normal year	100%	90%	100%
Average single dry year	100%	90%	100%
Average multiple dry year	100%	90%	100%
<b>Future (&gt;2005)</b>			
Average normal year	99%	90%	100%
Average single dry year	98%	61%	100%
Average multiple dry year	92%	39%	100%



The reliability values for the City of Fairfield are affected dramatically by the storage facilities available to the city. Long term storage allows the city to swap single dry year and multiple dry year values in our planning priorities. There is no single year event that carries the weight of multiple dry year events, whereas some utilities must weight their planning toward driest year events.

## **State Water Project**

Information on the reliability of the State Water Project (SWP) supply comes from a "Notice of State Water Project Contractors" dated May 25, 2005, that provides SWP delivery reliability data from the draft 2005 SWP Delivery Reliability Report. DWR recommends that the results of Studies 6 and 7 in the Notice be used for development of 2005 UWMP's. Study 6 is for a 2001 level of development and Study 7 is for a 2020 level of development. The studies show percent allocation of contract amounts for years 1922 through 1993.

In order to categorize the water year type into dry and normal years, the Sacramento Valley Water Year Index, also known as the 40/30/30 index was used. The Sacramento Valley Index uses 40% of April through July runoff, 30% of October through March runoff and 30% of the previous year's index. The Sacramento Valley Index is used to determine water year types in State Water Resources Control Board Decision 1641. We have assigned a Sacramento Valley Index to each of the years that it has hydrologic records.

Note that the SWP also makes available Article 21 water that is available to SWP contractors under specified conditions when the Delta is in excess conditions and there is pumping capacity available. Fairfield receives its water from the North Bay Aqueduct (NBA). Current DWR policy is that Article 21 water is available whenever the Delta is in excess (out of balance) conditions. This makes Article 21 water available to NBA users more frequently than SWP contractors relying upon the Banks pumping plant (South Delta SWP export facility). For the purposes of this UWMP, Article 21 deliveries are not included although they can be a significant additional supply most years.

There are numerous factors that affect the reliability of SWP supplies. The main factor is hydrologic conditions that result in extremely variable runoff conditions. The SWP has storage from Oroville Reservoir, however most of the SWP water supply comes from Sacramento Valley runoff. There are a myriad of environmental, water quality and legal constraints on the SWP that affect water supply reliability. The water rights for the SWP are conditioned upon meeting various water quality and environmental conditions including the Federal Endangered Species Act. The models used to develop the SWP reliability data incorporate these constraints.

## **Solano Project**

For the Solano Project a similar year type index was developed based upon procedures similar to the Sacramento Valley index. An existing model exists for the Solano Project that uses hydrologic records from 1906 through 1993. Using similar assumptions as the Sacramento Valley 40/30/30 Index, year types were assigned to each of the years in the Solano Project model resulting in a Lake Berryessa Index that identifies wet, normal and dry years.

The Allocation process for water supplies from the Solano Project is very different than for the SWP. For the Solano Project, the contract with USBR calls for the full contract amount to be delivered unless it is physically impossible to deliver the water from Solano Project storage (i.e.



reservoir is dry). Therefore, the full contract water supply is allocated until there is no water available in the reservoir.

The Solano Project member agencies (including the City of Fairfield) have entered into a separate agreement to reduce deliveries based upon storage levels in Lake Berryessa. Once the storage level drops below 800,000 acre feet, as measured on April 1, 95% of contract amounts are delivered with 5% being stored in the reservoir as carryover. If the reservoir drops below 550,000 acre feet by April 1, 90% can be delivered and 10% is stored as carryover. The City of Fairfield has the ability to carryover more than this amount if we desire. Once the reservoir level is below 400,000 acre feet on April 1, the member agencies can use their full allocation and any stored carryover. For more information see the Drought Measures Agreement in Appendix A.

## 2.5 Transfer and Exchange Opportunities

The City of Fairfield does not have any out of area transfers or exchanges.

## 2.6 Water Use by Customer-type: Past, Current and Future (Table 12)

Year		Water Use Sectors	Single Family	Multi-Family	Commercial	Industrial	Institutional / Gov	Landscape	Other	Total
2000	metered	# of accounts	21,366	469	844	43	133	577	274	23,706
		Deliveries AF/Y	9,200	2,100	1,500	3,000	500	2,800	700	19,800
	unmetered	# of accounts								
		Deliveries AF/Y								
2004	metered	# of accounts	24,316	470	907	53	140	724	386	26,996
		Deliveries AF/Y	10,900	2,400	1,575	2,900	525	3,500	300	22,100
	unmetered	# of accounts								
		Deliveries AF/Y								
2005	metered	# of accounts	24,766	520	1,141	56	176	724	405	27,788
		Deliveries AF/Y	11,200	2,500	1,600	3,100	700	3,600	800	23,500
	unmetered	# of accounts								0
		Deliveries AF/Y								0
2010	metered	# of accounts	29,105	611	1,258	58	194	807	426	32,459
		Deliveries AF/Y	13,200	2,900	1,764	4,882	772	3,900	882	28,300
	unmetered	# of accounts								0
		Deliveries AF/Y								0
2015	metered	# of accounts	32,720	687	1,346	61	208	866	447	36,335
		Deliveries AF/Y	14,800	3,300	1,887	5,944	826	4,000	944	31,700
	unmetered	# of accounts								0
		Deliveries AF/Y								0
2020	metered	# of accounts	34,347	721	1,492	64	230	914	469	38,238
		Deliveries AF/Y	15,500	3,500	2,092	7,546	915	4,000	1,046	34,600
	unmetered	# of accounts								0
		Deliveries AF/Y								0
2025	metered	# of accounts	35,793	752	1,697	68	262	950	493	40,013
		Deliveries AF/Y	16,200	3,600	2,379	9,190	1,041	3,900	1,190	37,500
	unmetered	# of accounts								0
		Deliveries AF/Y								0
2030	metered	# of accounts	35,793	752	1,843	71	285	973	517	40,234
		Deliveries AF/Y	16,200	3,600	2,585	10,292	1,131	4,100	1,292	39,200
	unmetered	# of accounts								0
		Deliveries AF/Y								0



The City of Fairfield has entered into agreements with adjoining agencies to provide water service in case of emergency. These agreements are expected to be limited in amount and irregular in use. Any sense of consistency or growth in these projections is not accurate.

**Sales to Other Agencies - AF/Year (Table 13)**

Water Distributed	2000	2004	2005	2010	2015	2020	2025	2030
Cordelia	2	0	5	5	5	5	5	5
Suisun	0	0.43	0	0	0	0	0	0
Vallejo	30	0	20	20	20	20	20	20
Total	32	0.43	25	25	25	25	25	25

**Additional Water Uses and Losses – AF/Year (Table 14)**

Water Uses	2000	2004	2005	2010	2015	2020	2025	2030
Raw Water	1,800	2,600	2,500	2,900	3,300	3,700	4,100	4,100
Recycled	0	100	100	600	1,200	2,400	2,600	2,800
Other - Flushing	17	51	50	50	50	50	50	50
Unaccounted-for system losses	1600	1900	1900	2700	3000	3300	3600	3800
Total	3417	4651	4550	6250	7550	9450	10350	10750

**Total Water Use – AF/Year (Table 15)**

Water Use	2000	2004	2005	2010	2015	2020	2025	2030
Sum of Tables 12, 13, 14	23,249	26,751	28,075	34,575	39,275	44,075	47,875	49,975



## 2.7 Demand Management Measures

As a signatory to the CUWCC, the City of Fairfield has completed several years of data entry into the BMP Activity database. The following pages list the accomplishments of the Agency from 2004 back to 2001.

### Water Supply & Reuse

Reporting Unit: Year:  
**City of Fairfield, Dept of Public Works 2004**

#### Water Supply Source Information

Supply Source Name	Quantity (AF) Supplied	Supply Type
--------------------	------------------------	-------------

Total AF:

### Accounts & Water Use

Reporting Unit Name: Submitted to CUWCC Year:  
**City of Fairfield, Dept of Public Works 02/28/2005 2004**

#### A. Service Area Population Information:

1. Total service area population 94977

#### B. Number of Accounts and Water Deliveries (AF)

Type	Metered	Water Deliveries (AF)	Unmetered	Water Deliveries (AF)
	No. of Accounts		No. of Accounts	
1. Single-Family	24316	10925	0	0
2. Multi-Family	470	2386	0	0
3. Commercial	907	1553	0	0
4. Industrial	53	2859	0	0
5. Institutional	140	543	0	0
6. Dedicated Irrigation	724	3517	0	0
7. Recycled Water	9	31	0	0
8. Other	386	265	0	0
9. Unaccounted	NA	2057	NA	0
<b>Total</b>	<b>27005</b>	<b>24136</b>	<b>0</b>	<b>0</b>
	<b>Metered</b>		<b>Unmetered</b>	

### BMP 01: Water Survey Programs for Single-Family and Multi-Family Residential Customers

Reporting Unit: BMP Form Status: Year:  
**City of Fairfield, Dept of Public Works 100% Complete 2004**

#### A. Implementation



1. Based on your signed MOU date, 03/20/1992, your Agency STRATEGY DUE DATE is: 03/20/1994
2. Has your agency developed and implemented a targeting/ marketing strategy for SINGLE-FAMILY residential water use surveys? yes
  - a. If YES, when was it implemented? 06/01/01998
3. Has your agency developed and implemented a targeting/ marketing strategy for MULTI-FAMILY residential water use surveys? yes
  - a. If YES, when was it implemented? 06/01/1996

## B. Water Survey Data

Survey Counts:	Single Family Accounts	Multi-Family Units
1. Number of surveys offered:	1650	0
2. Number of surveys completed:	230	2
<b>Indoor Survey:</b>		
3. Check for leaks, including toilets, faucets and meter checks	yes	no
4. Check showerhead flow rates, aerator flow rates, and offer to replace or recommend replacement, if necessary	yes	no
5. Check toilet flow rates and offer to install or recommend installation of displacement device or direct customer to ULFT replacement program, as necessary; replace leaking toilet flapper, as necessary	yes	no
<b>Outdoor Survey:</b>		
6. Check irrigation system and timers	yes	no
7. Review or develop customer irrigation schedule	yes	no
8. Measure landscaped area (Recommended but not required for surveys)	yes	no
9. Measure total irrigable area (Recommended but not required for surveys)	no	no
10. Which measurement method is typically used (Recommended but not required for surveys)	Measuring Tape	
11. Were customers provided with information packets that included evaluation results and water savings recommendations?	yes	yes
12. Have the number of surveys offered and completed, survey results, and survey costs been tracked?	yes	yes
a. If yes, in what form are surveys tracked?		spreadsheet
b. Describe how your agency tracks this information.	Spreadsheet with all information gathered from survey is logged and kept. Original survey sheets and chart of water consumption is retained.	

## C. Water Survey Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	20000	20000
2. Actual Expenditures	37028	

## D. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No
  - a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

## E. Comments



## BMP 02: Residential Plumbing Retrofit

Reporting Unit:

**City of Fairfield, Dept of Public Works**

BMP Form Status:

**100% Complete**

Year:

**2004**

### A. Implementation

1. Is there an enforceable ordinance in effect in your service area requiring replacement of high-flow showerheads and other water use fixtures with their low-flow counterparts? no

a. If YES, list local jurisdictions in your service area and code or ordinance in each:

2. Has your agency satisfied the 75% saturation requirement for single-family housing units? yes

3. Estimated percent of single-family households with low-flow showerheads: 82%

4. Has your agency satisfied the 75% saturation requirement for multi-family housing units? no

5. Estimated percent of multi-family households with low-flow showerheads: 75%

6. If YES to 2 OR 4 above, please describe how saturation was determined, including the dates and results of any survey research.

A showerhead study was conducted May through August of 2001. Random lists were generated and some homes were visited on the lists. At each home one or more showerhead was tested and recorded. A total of 96 homes were tested. IT was found that 82.6% of the homes visited were at or below 2.5 GPMs and 17.4% were above 2.5 GPMs.

### B. Low-Flow Device Distribution Information

1. Has your agency developed a targeting/ marketing strategy for distributing low-flow devices? yes

a. If YES, when did your agency begin implementing this strategy? 1/1/1998

b. Describe your targeting/ marketing strategy.

In our Water Quality Report that is sent to every home in our billing area, we include an offer for free water saving devices including low flow showerheads, kitchen and bathroom sink aerators, and toilet bags. Also at our home surveys we offer the same hardware.

Low-Flow Devices Distributed/ Installed	SF Accounts	MF Units
---	-------------	----------

2. Number of low-flow showerheads distributed:	647	98
--	-----	----

3. Number of toilet-displacement devices distributed:	422	98
---	-----	----

4. Number of toilet flappers distributed:	0	0
---	---	---

5. Number of faucet aerators distributed:	1297	98
---	------	----

6. Does your agency track the distribution and cost of low-flow devices? yes

a. If YES, in what format are low-flow devices tracked? Spreadsheet

b. If yes, describe your tracking and distribution system :

As each house is visited, or as Fairfield residents come to the office to get water saving devices, a log is kept of hardware given out. Invoices of purchases are kept to track expenditures.

### C. Low-Flow Device Distribution Expenditures

	This Year	Next Year
1. Budgeted Expenditures	100	4400
2. Actual Expenditures	3500	

### D. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

### E. Comments

Product placement is an integrated part of our water survey program, which continues forward. New marketing devices are also included (hose nozzles or moisture sensors).



**BMP 03: System Water Audits, Leak Detection and Repair**

Reporting Unit:	BMP Form Status:	Year:
<b>City of Fairfield, Dept of Public Works</b>	<b>100% Complete</b>	<b>2004</b>

**A. Implementation**

1. Has your agency completed a pre-screening system audit for this reporting year? yes
2. If YES, enter the values (AF/Year) used to calculate verifiable use as a percent of total production:
  - a. Determine metered sales (AF) 20508
  - b. Determine other system verifiable uses (AF) 1589
  - c. Determine total supply into the system (AF) 24155
  - d. Using the numbers above, if (Metered Sales + Other Verifiable Uses) / Total Supply is < 0.9 then a full-scale system audit is required. 0.91
3. Does your agency keep necessary data on file to verify the values used to calculate verifiable uses as a percent of total production? yes
4. Did your agency complete a full-scale audit during this report year? yes
5. Does your agency maintain in-house records of audit results or the completed AWWA audit worksheets for the completed audit? yes
6. Does your agency operate a system leak detection program? yes
  - a. If yes, describe the leak detection program:  
The City addresses leak detection on a periodic basis. The program is tied to street overlay work and focuses on recurrent leaks within a geographic area. Periodically water distribution staff will also review entire subdivisions based on frequent leak detection.

**B. Survey Data**

1. Total number of miles of distribution system line. 318
2. Number of miles of distribution system line surveyed. 10

**C. System Audit / Leak Detection Program Expenditures**

	<b>This Year</b>	<b>Next Year</b>
1. Budgeted Expenditures	30000	30000
2. Actual Expenditures	30000	

**D. "At Least As Effective As"**

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No
  - a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

**E. Comments****BMP 04: Metering with Commodity Rates for all New Connections and Retrofit of Existing**

Reporting Unit:	BMP Form Status:	Year:
<b>City of Fairfield, Dept of Public Works</b>	<b>100% Complete</b>	<b>2004</b>

**A. Implementation**

1. Does your agency require meters for all new connections and bill by volume-of-use? yes
2. Does your agency have a program for retrofitting existing unmetered connections and bill by volume-of-use? no
  - a. If YES, when was the plan to retrofit and bill by volume-of-use existing



unmetered connections completed?

b. Describe the program:

3. Number of previously unmetered accounts fitted with meters during report year. 0

### **B. Feasibility Study**

1. Has your agency conducted a feasibility study to assess the merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters? no

a. If YES, when was the feasibility study conducted? (mm/dd/yy)

b. Describe the feasibility study:

2. Number of CII accounts with mixed-use meters. 105

3. Number of CII accounts with mixed-use meters retrofitted with dedicated irrigation meters during reporting period. 0

### **C. Meter Retrofit Program Expenditures**

	<b>This Year</b>	<b>Next Year</b>
1. Budgeted Expenditures	0	0
2. Actual Expenditures	0	

### **D. "At Least As Effective As"**

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

The city has long had a volume only rate for irrigation meters. This structure allows for one of three rates - irrigation, interruptible irrigation service, and special irrigation (in anticipation of recycled water service). We have also set up three special service areas within our community to be served raw water from the Solano Irrigation District. These structures have encouraged private owners and public agencies to use more controlled use of their irrigation water within the city. Irrigation only service has increased from just over 1800 AF per year in 1990 to just under 4200 AF in 2000. Many of the accounts are substitution accounts as well, moving from a multi-use category to an irrigation only category. These efforts allow irrigation managers to more easily track and manage the water consumption and cost of their landscaping.

### **E. Comments**

The City benefits from a number of water projects completed prior to this year. This year the City also began the groundwork for targeting the multi-use accounts for retrofits. We anticipate completion of the retrofit plan this summer.

## **BMP 05: Large Landscape Conservation Programs and Incentives**

Reporting Unit:	BMP Form Status:	Year:
<b>City of Fairfield, Dept of Public Works</b>	<b>100% Complete</b>	<b>2004</b>

### **A. Water Use Budgets**

1. Number of Dedicated Irrigation Meter Accounts:	724
2. Number of Dedicated Irrigation Meter Accounts with Water Budgets:	86
3. Budgeted Use for Irrigation Meter Accounts with Water Budgets (AF):	413
4. Actual Use for Irrigation Meter Accounts with Water Budgets (AF):	427
5. Does your agency provide water use notices to accounts with budgets each billing cycle?	yes

### **B. Landscape Surveys**

1. Has your agency developed a marketing / targeting strategy for landscape surveys? yes



- a. If YES, when did your agency begin implementing this strategy? 5/1/2002
- b. Description of marketing / targeting strategy:  
The City began focusing on the Landscape Maintenance Districts controlled by the City and contracted for irrigation and maintenance
2. Number of Surveys Offered. 0
3. Number of Surveys Completed. 0
4. Indicate which of the following Landscape Elements are part of your survey:
- a. Irrigation System Check yes
  - b. Distribution Uniformity Analysis no
  - c. Review / Develop Irrigation Schedules yes
  - d. Measure Landscape Area yes
  - e. Measure Total Irrigable Area no
  - f. Provide Customer Report / Information yes
5. Do you track survey offers and results? yes
6. Does your agency provide follow-up surveys for previously completed surveys? no
- a. If YES, describe below:

### C. Other BMP 5 Actions

1. An agency can provide mixed-use accounts with ETo-based landscape budgets in lieu of a large landscape survey program. no
- Does your agency provide mixed-use accounts with landscape budgets?
2. Number of CII mixed-use accounts with landscape budgets. 0
3. Do you offer landscape irrigation training? no
4. Does your agency offer financial incentives to improve landscape water use efficiency? no

Type of Financial Incentive:	Budget (Dollars/ Year)	Number Awarded to Customers	Total Amount Awarded
a. Rebates	0	0	0
b. Loans	0	0	0
c. Grants	0	0	0
5. Do you provide landscape water use efficiency information to new customers and customers changing services?			yes

- a. If YES, describe below:  
All commercial, institutional and industrial insulations must go through the City's plan check process and comply with the water efficient landscaping ordinance. This ordinance requires a new use to establish a water budget based on the landscape design and applicable evapotranspiration (ET) for the City of Fairfield. This ordinance follows the guidelines established by the State of California prior to the adoption in 1992.
6. Do you have irrigated landscaping at your facilities? yes
- a. If yes, is it water-efficient? yes
  - b. If yes, does it have dedicated irrigation metering? yes
7. Do you provide customer notices at the start of the irrigation season? no
8. Do you provide customer notices at the end of the irrigation season? no

### D. Landscape Conservation Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	66615	4615
2. Actual Expenditures	66903	

### E. "At Least As Effective As"



1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

#### **F. Comments**

This year the City installed an Eto Central Irrigation and weather station project at one of the City parks. Our intent is to expand weather station backbones in the separate weather climates of the community. This information can then feed irrigation controllers for more effective watering in Fairfield. A newly created regional CII program will also help to expand large landscape conservation.

### **BMP 06: High-Efficiency Washing Machine Rebate Programs**

Reporting Unit:	BMP Form Status:	Year:
<b>City of Fairfield, Dept of Public Works</b>	<b>100% Complete</b>	<b>2004</b>

#### **A. Implementation**

- |   |     |
|---|-----|
| 1. Do any energy service providers or waste water utilities in your service area offer rebates for high-efficiency washers? | yes |
| a. If YES, describe the offerings and incentives as well as who the energy/waste water utility provider is.                 |     |
| PG&E offered a rebate for approximately \$50 that was intermittently offered over the course of the year.                   |     |
| 2. Does your agency offer rebates for high-efficiency washers?  | yes |
| 3. What is the level of the rebate?   | 25  |
| 4. Number of rebates awarded.   | 2   |

#### **B. Rebate Program Expenditures**

	<b>This Year</b>	<b>Next Year</b>
1. Budgeted Expenditures	175	250
2. Actual Expenditures	50	

#### **C. "At Least As Effective As"**

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

#### **D. Comments**

The City of Fairfield has prepared an exemption for this BMP as it is not cost effective at a rate that will make a significant difference to the purchasing public.

### **BMP 07: Public Information Programs**

Reporting Unit:	BMP Form Status:	Year:
<b>City of Fairfield, Dept of Public Works</b>	<b>100% Complete</b>	<b>2004</b>

#### **A. Implementation**

- |  |     |
|--|-----|
| 1. Does your agency maintain an active public information program to promote and educate customers about water conservation?   | yes |
| a. If YES, describe the program and how it's organized.  |     |
| We have a very active program that reaches out to the community in many ways. We have bill inserts, brochures, public service announcements, participation in special events, articles in the Fairfield Observer, a newsletter sent out to all City residents and our Water Quality Report is also sent to every water user in our City. |     |
| 2. Indicate which and how many of the following activities are included in your public information program.  |     |

<b>Public Information Program Activity</b>	<b>Yes/No</b>	<b>Number of</b>
--	---------------	------------------



		<b>Events</b>
a. Paid Advertising	no	
b. Public Service Announcement	yes	3
c. Bill Inserts / Newsletters / Brochures	yes	2
d. Bill showing water usage in comparison to previous year's usage	yes	
e. Demonstration Gardens	yes	2
f. Special Events, Media Events	yes	3
g. Speaker's Bureau	no	
h. Program to coordinate with other government agencies, industry and public interest groups and media	yes	

**B. Conservation Information Program Expenditures**

	<b>This Year</b>	<b>Next Year</b>
1. Budgeted Expenditures	1400	1400
2. Actual Expenditures	8146	

**C. "At Least As Effective As"**

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

**D. Comments**

Six Flags Marine World Display is our most active public outreach effort. It is seen by approximately 1,000,000 guests each year. This project will be modified and updated this year, requiring financial and staff resources from the Cities in Solano County.

**BMP 08: School Education Programs**

Reporting Unit: BMP Form Status: Year:  
**City of Fairfield, Dept of Public Works** **100% Complete** **2004**

**A. Implementation**

1. Has your agency implemented a school information program to promote water conservation? yes

2. Please provide information on your school programs (by grade level):

Grade	Are grade-appropriate materials distributed?	No. of class presentations	No. of students reached	No. of teachers' workshops
Grades K-3rd	yes	26	494	6
Grades 4th-6th	yes	5	185	0
Grades 7th-8th	yes	0	0	0
High School	yes	4	120	0

3. Did your Agency's materials meet state education framework requirements? yes

4. When did your Agency begin implementing this program? 1/1/1992

**B. School Education Program Expenditures**

	<b>This Year</b>	<b>Next Year</b>
1. Budgeted Expenditures	1400	10563
2. Actual Expenditures	9165	

**C. "At Least As Effective As"**



1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

#### **D. Comments**

Our program focuses on providing state certified, age-appropriate materials into the hands of teachers. There is limited classroom instruction by program staff. We have engaged in a multi-city contract with an education consultant. We are also expanding our program to a classroom and field based program to teach water education in conjunction with Solano County and UC Davis.

### **BMP 09: Conservation Programs for CII Accounts**

Reporting Unit:

**City of Fairfield, Dept of Public Works**

BMP Form Status:

**100% Complete**

Year:

**2004**

#### **A. Implementation**

- |  |     |
|--|-----|
| 1. Has your agency identified and ranked COMMERCIAL customers according to use?    | yes |
| 2. Has your agency identified and ranked INDUSTRIAL customers according to use?    | yes |
| 3. Has your agency identified and ranked INSTITUTIONAL customers according to use? | yes |

---

#### **Option A: CII Water Use Survey and Customer Incentives Program**

---

4. Is your agency operating a CII water use survey and customer incentives program for the purpose of complying with BMP 9 under this option? yes

<b>CII Surveys</b>	<b>Commercial Accounts</b>	<b>Industrial Accounts</b>	<b>Institutional Accounts</b>
a. Number of New Surveys Offered	0	0	0
b. Number of New Surveys Completed	0	0	0
c. Number of Site Follow-ups of Previous Surveys (within 1 yr)	0	0	0
d. Number of Phone Follow-ups of Previous Surveys (within 1 yr)	0	0	0
<b>CII Survey Components</b>	<b>Commercial Accounts</b>	<b>Industrial Accounts</b>	<b>Institutional Accounts</b>
e. Site Visit	yes	yes	yes
f. Evaluation of all water-using apparatus and processes	yes	yes	yes
g. Customer report identifying recommended efficiency measures, paybacks and agency incentives	no	no	no
<b>Agency CII Customer Incentives</b>	<b>Budget (\$/Year)</b>	<b>No. Awarded to Customers</b>	<b>Total \$ Amount Awarded</b>



h. Rebates	0	0	0
i. Loans	0	0	0
j. Grants	0	0	0
k. Others	0	0	0

---

### Option B: CII Conservation Program Targets

---

- |   |    |
|---|----|
| 5. Does your agency track CII program interventions and water savings for the purpose of complying with BMP 9 under this option?    | No |
| 6. Does your agency document and maintain records on how savings were realized and the method of calculation for estimated savings? | No |
| 7. Estimated annual savings (AF/yr) from site-verified actions taken by agency since 1991.  | 0  |
| 8. Estimated annual savings (AF/yr) from non-site-verified actions taken by agency since 1991.                                      | 0  |

### B. Conservation Program Expenditures for CII Accounts

	This Year	Next Year
1. Budgeted Expenditures	4903	7772
2. Actual Expenditures	5000	

### C. "At Least As Effective As"

- |  |    |
|--|----|
| 1. Is your AGENCY implementing an "at least as effective as" variant of this BMP?  | No |
| a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as." |    |

### D. Comments

Solano County Water Agency (the wholesale water provider in the county) is currently in the process of funding a study for improved implementation of this BMP. We anticipate improved implementation this next reporting period. We have hired Maddaus Water Management to design and implement a complete CII program.

### BMP 09a: CII ULFT Water Savings

Reporting Unit:	BMP Form Status:	Year:
City of Fairfield, Dept of Public Works	100% Complete	2004

- |  |    |
|--|----|
| 1. Did your agency implement a CII ULFT replacement program in the reporting year?<br>If No, please explain why on Line B. 10. | No |
|--|----|

### A. Targeting and Marketing

1. What basis does your agency use to target customers for participation in this program?  
Check all that apply.

- a. Describe which method you found to be the most effective overall, and which was the most effective per dollar expended.



2. How does your agency advertise this program? Check all that apply.

a. Describe which method you found to be the most effective overall, and which was the most effective per dollar expended.

## B. Implementation

1. Does your agency keep and maintain customer participant information? (Read the Help information for a complete list of all the information for this BMP.)

2. Would your agency be willing to share this information if the CUWCC did a study to evaluate the program on behalf of your agency?

3. What is the total number of customer accounts participating in the program during the last year ?

CII Subsector	Number of Toilets Replaced				
	Standard Gravity Tank	Air Assisted	Valve Floor Mount	Valve Wall Mount	Type Not Specified
4.					
a. Offices					
b. Retail / Wholesale					
c. Hotels					
d. Health					
e. Industrial					
f. Schools: K to 12					
g. Eating					
h. Govern-ment					
i. Churches					
j. Other					



5. Program design.
6. Does your agency use outside services to implement this program?
  - a. If yes, check all that apply.
7. Participant tracking and follow-up.
8. Based on your program experience, please rank on a scale of 1 to 5, with 1 being the least frequent cause and 5 being the most frequent cause, the following reasons why customers refused to participate in the program.
  - a. Disruption to business
  - b. Inadequate payback
  - c. Inadequate ULFT performance
  - d. Lack of funding
  - e. American's with Disabilities Act
  - f. Permitting
  - g. Other. Please describe in B. 9.
9. Please describe general program acceptance/resistance by customers, obstacles to implementation, and other issues affecting program implementation or effectiveness.
10. Please provide a general assessment of the program for this reporting year. Did your program achieve its objectives? Were your targeting and marketing approaches effective? Were program costs in line with expectations and budgeting?

We have done a cost effective analysis of UFLT's and have found that they are not cost effective.

### **C. Conservation Program Expenditures for CII ULFT**

#### **1. CII ULFT Program: Annual Budget & Expenditure Data**

	<b>Budgeted</b>	<b>Actual Expenditure</b>
a. Labor		
b. Materials		



c. Marketing &  
Advertising

d. Administration &  
Overhead

e. Outside Services

f. Total 0 0

## 2. CII ULFT Program: Annual Cost Sharing

a. Wholesale agency  
contribution

b. State agency  
contribution

c. Federal agency  
contribution

d. Other contribution

e. Total 0

### D. Comments

The City of Fairfield prepared an exemption for this BMP as it is not cost effective.

## BMP 11: Conservation Pricing

Reporting Unit:	BMP Form Status:	Year:
City of Fairfield, Dept of Public Works	100% Complete	2004

### A. Implementation

#### Rate Structure Data Volumetric Rates for Water Service by Customer Class

##### 1. Residential

a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Non-volumetric Flat Rate
c. Total Revenue from Volumetric Rates	\$9276571
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$14376468

##### 2. Commercial

a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Uniform
c. Total Revenue from Volumetric Rates	\$2152590
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$752981

##### 3. Industrial



- |  |           |
|--|-----------|
| a. Water Rate Structure  | Uniform   |
| b. Sewer Rate Structure  | Uniform   |
| c. Total Revenue from Volumetric Rates                                       | \$2014145 |
| d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources | \$526412  |

#### 4. Institutional / Government

- |  |          |
|--|----------|
| a. Water Rate Structure  | Uniform  |
| b. Sewer Rate Structure  | Uniform  |
| c. Total Revenue from Volumetric Rates                                       | \$729800 |
| d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources | \$394873 |

#### 5. Irrigation

- |  |                      |
|--|----------------------|
| a. Water Rate Structure  | Uniform              |
| b. Sewer Rate Structure  | Service Not Provided |
| c. Total Revenue from Volumetric Rates                                       | \$1600994            |
| d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources | \$30899              |

#### 6. Other

- |  |          |
|--|----------|
| a. Water Rate Structure  | Uniform  |
| b. Sewer Rate Structure  | Uniform  |
| c. Total Revenue from Volumetric Rates                                       | \$359341 |
| d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources | \$282434 |

### B. Conservation Pricing Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	0	0
2. Actual Expenditures	0	

### C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No

- a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

### D. Comments

Non-residential rates for sewer change into a calculated formula once volume exceeds 5000 gallons per day. These rates are typically substantially higher than the uniform rate.

### BMP 12: Conservation Coordinator

Reporting Unit:	BMP Form Status:	Year:
City of Fairfield, Dept of Public Works	100% Complete	2004

#### A. Implementation

- Does your Agency have a conservation coordinator? yes
- Is this a full-time position? yes
- If no, is the coordinator supplied by another agency with which you cooperate in a regional conservation program ?
- Partner agency's name: none
- If your agency supplies the conservation coordinator:
  - What percent is this conservation coordinator's position? 60%



b. Coordinator's Name	Andrew Walker
c. Coordinator's Title	Senior Management Analyst
d. Coordinator's Experience and Number of Years	Masters Degree in Public Administration, 9 years of experience
e. Date Coordinator's position was created (mm/dd/yyyy)	1/1/1991
6. Number of conservation staff, including Conservation Coordinator.	5

## B. Conservation Staff Program Expenditures

	<b>This Year</b>	<b>Next Year</b>
1. Budgeted Expenditures	10000	13100
2. Actual Expenditures	13113	

## C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

## D. Comments

## BMP 13: Water Waste Prohibition

Reporting Unit:	BMP Form Status:	Year:
<b>City of Fairfield, Dept of Public Works</b>	<b>100% Complete</b>	<b>2004</b>

## A. Requirements for Documenting BMP Implementation

1. Is a water waste prohibition ordinance in effect in your service area? yes

a. If YES, describe the ordinance:  
Article XV. Water Misuse Prevention Program Declaration: "...the general welfare requires that the water resources available to the City be put to the maximum beneficial use possible and the misuse or unreasonable use or unreasonable method of use of water be prevented."

2. Is a copy of the most current ordinance(s) on file with CUWCC? yes

a. List local jurisdictions in your service area in the first text box and water waste ordinance citations in each jurisdiction in the second text box:  
-City of Fairfield City Code Section 22 Article XV

## B. Implementation

1. Indicate which of the water uses listed below are prohibited by your agency or service area.

a. Gutter flooding	yes
b. Single-pass cooling systems for new connections	yes
c. Non-recirculating systems in all new conveyor or car wash systems	no
d. Non-recirculating systems in all new commercial laundry systems	no
e. Non-recirculating systems in all new decorative fountains	no
f. Other, please name	yes

daytime irrigation restrictions, requirement to fix controlled water leaks

2. Describe measures that prohibit water uses listed above:

A. Failure by any customer to repair a controllable leak shall be prohibited. B. Landscape irrigation shall occur only before 12:00 noon or after 6:00 pm. C. All new installation of cooling systems using potable water as a coolant shall be recycling systems only.

### Water Softeners:

3. Indicate which of the following measures your agency has supported in developing state law:

a. Allow the sale of more efficient, demand-initiated regenerating DIR no



- models.
- b. Develop minimum appliance efficiency standards that:
- i.) Increase the regeneration efficiency standard to at least 3,350 grains of hardness removed per pound of common salt used. no
  - ii.) Implement an identified maximum number of gallons discharged per gallon of soft water produced. no
- c. Allow local agencies, including municipalities and special districts, to set more stringent standards and/or to ban on-site regeneration of water softeners if it is demonstrated and found by the agency governing board that there is an adverse effect on the reclaimed water or groundwater supply. no
4. Does your agency include water softener checks in home water audit programs? no
5. Does your agency include information about DIR and exchange-type water softeners in educational efforts to encourage replacement of less efficient timer models? no

### C. Water Waste Prohibition Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	500	500
2. Actual Expenditures	250	

### D. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no
- a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

### E. Comments

Every year a list is generated of the top 10% water users in our area. A letter is sent notifying them that they are in this group. The letter is not a citation, but it does notify the customer that they are using a large amount of water, and an in home audit and water saving devices are offered.

## BMP 14: Residential ULFT Replacement Programs

Reporting Unit: **City of Fairfield, Dept of Public Works**      BMP Form Status: **100% Complete**      Year: **2004**

### A. Implementation

	Single-Family Accounts	Multi-Family Units
1. Does your Agency have program(s) for replacing high-water-using toilets with ultra-low flush toilets?	no	no
<b>Number of Toilets Replaced by Agency Program During Report Year</b>		
<b>Replacement Method</b>	<b>SF Accounts</b>	<b>MF Units</b>
2. Rebate		
3. Direct Install		
4. CBO Distribution		
5. Other		

### Total

6. Describe your agency's ULFT program for single-family residences.
7. Describe your agency's ULFT program for multi-family residences.



8. Is a toilet retrofit on resale ordinance in effect for your service area? no
9. List local jurisdictions in your service area in the left box and ordinance citations in each jurisdiction in the right box:

## **B. Residential ULFT Program Expenditures**

	<b>This Year</b>	<b>Next Year</b>
1. Budgeted Expenditures	0	0
2. Actual Expenditures	0	

## **C. "At Least As Effective As"**

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no
- a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

## **D. Comments**

The City of Fairfield prepared an exemption for this BMP as it is not cost effective.



**Water Supply & Reuse**

Reporting Unit: Year:  
**City of Fairfield, Dept of Public Works 2003**

**Water Supply Source Information**

Supply Source Name	Quantity (AF) Supplied	Supply Type
--------------------	------------------------	-------------

**Total AF:**

**Accounts & Water Use**

Reporting Unit Name: Submitted to CUWCC Year:  
**City of Fairfield, Dept of Public Works 04/01/2004 2003**

**A. Service Area Population Information:**

1. Total service area population 93637

**B. Number of Accounts and Water Deliveries (AF)**

Type	Metered	Unmetered
	No. of Accounts	No. of Accounts
1. Single-Family	23363	0
2. Multi-Family	466	0
3. Commercial	894	0
4. Industrial	49	0
5. Institutional	141	0
6. Dedicated Irrigation	722	0
7. Recycled Water	0	0
8. Other	306	0
9. Unaccounted	NA	NA
<b>Total</b>	<b>25941</b>	<b>0</b>
	<b>Metered</b>	<b>Unmetered</b>

**BMP 01: Water Survey Programs for Single-Family and Multi-Family Residential Customers**

Reporting Unit: BMP Form Status: Year:  
**City of Fairfield, Dept of Public Works 100% Complete 2003**

**A. Implementation**

- Based on your signed MOU date, 03/20/1992, your Agency STRATEGY DUE DATE is: 03/20/1994
- Has your agency developed and implemented a targeting/ marketing strategy for SINGLE-FAMILY residential water use surveys? yes
  - If YES, when was it implemented? 06/01/1998
- Has your agency developed and implemented a targeting/ marketing strategy? yes



strategy for MULTI-FAMILY residential water use surveys?

a. If YES, when was it implemented?

06/01/1996

## B. Water Survey Data

Survey Counts:	Single Family Accounts	Multi-Family Units
1. Number of surveys offered:	30729	0
2. Number of surveys completed:	119	0
<b>Indoor Survey:</b>		
3. Check for leaks, including toilets, faucets and meter checks	yes	no
4. Check showerhead flow rates, aerator flow rates, and offer to replace or recommend replacement, if necessary	yes	no
5. Check toilet flow rates and offer to install or recommend installation of displacement device or direct customer to ULFT replacement program, as necessary; replace leaking toilet flapper, as necessary	yes	no
<b>Outdoor Survey:</b>		
6. Check irrigation system and timers	yes	no
7. Review or develop customer irrigation schedule	yes	no
8. Measure landscaped area (Recommended but not required for surveys)	yes	no
9. Measure total irrigable area (Recommended but not required for surveys)	no	no
10. Which measurement method is typically used (Recommended but not required for surveys)	Measuring Tape	
11. Were customers provided with information packets that included evaluation results and water savings recommendations?	yes	yes
12. Have the number of surveys offered and completed, survey results, and survey costs been tracked?	yes	yes
a. If yes, in what form are surveys tracked?	spreadsheet	
b. Describe how your agency tracks this information.	Spreadsheet with all information gathered from survey is logged and kept. Original survey sheets and chart of water consumption is retained.	

## C. Water Survey Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	21294	20000
2. Actual Expenditures	31781	

## D. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP?	No
a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."	

## E. Comments

## BMP 02: Residential Plumbing Retrofit

Reporting Unit:	BMP Form Status:	Year:
City of Fairfield, Dept of Public Works	100% Complete	2003

## A. Implementation

1. Is there an enforceable ordinance in effect in your service area requiring replacement of high-flow showerheads and other water use fixtures with their	no
--	----



low-flow counterparts?

- a. If YES, list local jurisdictions in your service area and code or ordinance in each:
2. Has your agency satisfied the 75% saturation requirement for single-family housing units? yes
3. Estimated percent of single-family households with low-flow showerheads: 82%
4. Has your agency satisfied the 75% saturation requirement for multi-family housing units? no
5. Estimated percent of multi-family households with low-flow showerheads: 75%
6. If YES to 2 OR 4 above, please describe how saturation was determined, including the dates and results of any survey research.

A showerhead study was conducted May through August of 2001. Random lists were generated and some homes were visited on the lists. At each home one or more showerhead was tested and recorded. A total of 96 homes were tested. IT was found that 82.6% of the homes visited were at or below 2.5 GPMs and 17.4% were above 2.5 GPMs.

### **B. Low-Flow Device Distribution Information**

1. Has your agency developed a targeting/ marketing strategy for distributing low-flow devices? yes
    - a. If YES, when did your agency begin implementing this strategy? 1/1/1998
    - b. Describe your targeting/ marketing strategy.
- In our Water Quality Report that is sent to every home in our billing area, we include an offer for free water saving devices including low flow showerheads, kitchen and bathroom sink aerators, and toilet bags. Also at our home surveys we offer the same hardware.

<b>Low-Flow Devices Distributed/ Installed</b>	<b>SF Accounts</b>	<b>MF Units</b>
2. Number of low-flow showerheads distributed:	95	0
3. Number of toilet-displacement devices distributed:	65	0
4. Number of toilet flappers distributed:	0	0
5. Number of faucet aerators distributed:	137	0
6. Does your agency track the distribution and cost of low-flow devices? <span style="float: right;">yes</span>		
a. If YES, in what format are low-flow devices tracked? <span style="float: right;">Spreadsheet</span>		
b. If yes, describe your tracking and distribution system :		
As each house is visited, or as Fairfield residents come to the office to get water saving devices, a log is kept of hardware given out. Invoices of purchases are kept to track expenditures.		

### **C. Low-Flow Device Distribution Expenditures**

	<b>This Year</b>	<b>Next Year</b>
1. Budgeted Expenditures	100	100
2. Actual Expenditures	900	

### **D. "At Least As Effective As"**

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No
  - a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

### **E. Comments**

Product placement is an integrated part of our water survey program, which continues forward. New marketing devices are also included (hose nozzles).

## **BMP 03: System Water Audits, Leak Detection and Repair**

Reporting Unit:	BMP Form Status:	Year:
<b>City of Fairfield, Dept of Public Works</b>	<b>100% Complete</b>	<b>2003</b>

### **A. Implementation**



1. Has your agency completed a pre-screening system audit for this reporting year? yes
2. If YES, enter the values (AF/Year) used to calculate verifiable use as a percent of total production:
  - a. Determine metered sales (AF) 20809
  - b. Determine other system verifiable uses (AF) 1723
  - c. Determine total supply into the system (AF) 23576
  - d. Using the numbers above, if (Metered Sales + Other Verifiable Uses) / Total Supply is < 0.9 then a full-scale system audit is required. 0.96
3. Does your agency keep necessary data on file to verify the values used to calculate verifiable uses as a percent of total production? yes
4. Did your agency complete a full-scale audit during this report year? yes
5. Does your agency maintain in-house records of audit results or the completed AWWA audit worksheets for the completed audit? yes
6. Does your agency operate a system leak detection program? yes
  - a. If yes, describe the leak detection program:  
The City addresses leak detection on a periodic basis. The program is tied to street overlay work and focuses on recurrent leaks within a geographic area. Periodically water distribution staff will also review entire subdivisions based on frequent leak detection.

#### **B. Survey Data**

1. Total number of miles of distribution system line. 313.33
2. Number of miles of distribution system line surveyed. 10

#### **C. System Audit / Leak Detection Program Expenditures**

	<b>This Year</b>	<b>Next Year</b>
1. Budgeted Expenditures	30000	30000
2. Actual Expenditures	29000	

#### **D. "At Least As Effective As"**

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No
  - a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

#### **E. Comments**

### **BMP 04: Metering with Commodity Rates for all New Connections and Retrofit of Existing**

Reporting Unit: **City of Fairfield, Dept of Public Works**      BMP Form Status: **100% Complete**      Year: **2003**

#### **A. Implementation**

1. Does your agency require meters for all new connections and bill by volume-of-use? yes
2. Does your agency have a program for retrofitting existing unmetered connections and bill by volume-of-use? no
  - a. If YES, when was the plan to retrofit and bill by volume-of-use existing unmetered connections completed?
  - b. Describe the program:
3. Number of previously unmetered accounts fitted with meters during report year. 0

#### **B. Feasibility Study**

1. Has your agency conducted a feasibility study to assess the merits of a no



program to provide incentives to switch mixed-use accounts to dedicated landscape meters?

a. If YES, when was the feasibility study conducted? (mm/dd/yy)

b. Describe the feasibility study:

- |   |     |
|---|-----|
| 2. Number of CII accounts with mixed-use meters.  | 102 |
| 3. Number of CII accounts with mixed-use meters retrofitted with dedicated irrigation meters during reporting period. | 0   |

### C. Meter Retrofit Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	0	0
2. Actual Expenditures	0	

### D. "At Least As Effective As"

- |   |    |
|---|----|
| 1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? | No |
|---|----|

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

The city has long had a volume only rate for irrigation meters. This structure allows for one of three rates - irrigation, interruptible irrigation service, and special irrigation (in anticipation of recycled water service). We have also set up three special service areas within our community to be served raw water from the Solano Irrigation District. These structures have encouraged private owners and public agencies to use more controlled use of their irrigation water within the city. Irrigation only service has increased from just over 1800 AF per year in 1990 to just under 4200 AF in 2000. Many of the accounts are substitution accounts as well, moving from a multi-use category to an irrigation only category. These efforts allow irrigation managers to more easily track and manage the water consumption and cost of their landscaping.

### E. Comments

The City benefits from a number of water projects completed prior to this year. This year the City also began the groundwork for targeting the multi-use accounts for retrofits. We anticipate completion of the retrofit plan this summer.

## BMP 05: Large Landscape Conservation Programs and Incentives

Reporting Unit:	BMP Form Status:	Year:
City of Fairfield, Dept of Public Works	100% Complete	2003

### A. Water Use Budgets

- |  |     |
|--|-----|
| 1. Number of Dedicated Irrigation Meter Accounts:  | 722 |
| 2. Number of Dedicated Irrigation Meter Accounts with Water Budgets:                       | 86  |
| 3. Budgeted Use for Irrigation Meter Accounts with Water Budgets (AF):                     | 444 |
| 4. Actual Use for Irrigation Meter Accounts with Water Budgets (AF):                       | 445 |
| 5. Does your agency provide water use notices to accounts with budgets each billing cycle? | yes |

### B. Landscape Surveys

- |   |          |
|---|----------|
| 1. Has your agency developed a marketing / targeting strategy for landscape surveys?  | yes      |
| a. If YES, when did your agency begin implementing this strategy?   | 5/1/2002 |
| b. Description of marketing / targeting strategy:   |          |
| The City began focusing on the Landscape Maintenance Districts controlled by the City and contracted for irrigation and maintenance |          |
| 2. Number of Surveys Offered.   | 0        |



3. Number of Surveys Completed. 0
4. Indicate which of the following Landscape Elements are part of your survey:
  - a. Irrigation System Check yes
  - b. Distribution Uniformity Analysis no
  - c. Review / Develop Irrigation Schedules yes
  - d. Measure Landscape Area yes
  - e. Measure Total Irrigable Area no
  - f. Provide Customer Report / Information yes
5. Do you track survey offers and results? yes
6. Does your agency provide follow-up surveys for previously completed surveys? no
  - a. If YES, describe below:

### C. Other BMP 5 Actions

1. An agency can provide mixed-use accounts with ETo-based landscape budgets in lieu of a large landscape survey program. no
- Does your agency provide mixed-use accounts with landscape budgets?
2. Number of CII mixed-use accounts with landscape budgets. 0
3. Do you offer landscape irrigation training? no
4. Does your agency offer financial incentives to improve landscape water use efficiency? no

Type of Financial Incentive:	Budget (Dollars/ Year)	Number Total Awarded to Customers	Amount Awarded
a. Rebates			
b. Loans			
c. Grants			

5. Do you provide landscape water use efficiency information to new customers and customers changing services? yes

a. If YES, describe below:

All commercial, institutional and industrial insulations must go through the City's plan check process and comply with the water efficient landscaping ordinance. This ordinance requires a new use to establish a water budget based on the landscape design and applicable evapotranspiration (ET) for the City of Fairfield. This ordinance follows the guidelines established by the State of California prior to the adoption in 1992.

6. Do you have irrigated landscaping at your facilities? yes
  - a. If yes, is it water-efficient? yes
  - b. If yes, does it have dedicated irrigation metering? yes
7. Do you provide customer notices at the start of the irrigation season? no
8. Do you provide customer notices at the end of the irrigation season? no

### D. Landscape Conservation Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	64615	2000
2. Actual Expenditures	31859	

### E. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No
  - a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

### F. Comments

This year the City installed an Eto Central Irrigation and weather station project at one of



the City parks. Our intent is to expand weather station backbones in the separate weather climates of the community. This information can then feed irrigation controllers for more effective watering in Fairfield.

## **BMP 06: High-Efficiency Washing Machine Rebate Programs**

Reporting Unit: **City of Fairfield, Dept of Public Works**      BMP Form Status: **100% Complete**      Year: **2003**

### **A. Implementation**

1. Do any energy service providers or waste water utilities in your service area offer rebates for high-efficiency washers? yes
  - a. If YES, describe the offerings and incentives as well as who the energy/waste water utility provider is.  
PG&E offered a rebate for approximately \$50 that was intermittently offered over the course of the year.
2. Does your agency offer rebates for high-efficiency washers? yes
3. What is the level of the rebate? 25
4. Number of rebates awarded. 2

### **B. Rebate Program Expenditures**

	<b>This Year</b>	<b>Next Year</b>
1. Budgeted Expenditures	175	175
2. Actual Expenditures	50	

### **C. "At Least As Effective As"**

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no
  - a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

### **D. Comments**

The City of Fairfield has prepared an exemption for this BMP as it is not cost effective at a rate that will make a significant difference to the purchasing public.

## **BMP 07: Public Information Programs**

Reporting Unit: **City of Fairfield, Dept of Public Works**      BMP Form Status: **100% Complete**      Year: **2003**

### **A. Implementation**

1. Does your agency maintain an active public information program to promote and educate customers about water conservation? yes
  - a. If YES, describe the program and how it's organized.  
We have a very active program that reaches out to the community in many ways. We have bill inserts, brochures, public service announcements, participation in special events, articles in the Fairfield Observer, a newsletter sent out to all City residents and our Water Quality Report is also sent to every water user in our City.
2. Indicate which and how many of the following activities are included in your public information program.

<b>Public Information Program Activity</b>	<b>Yes/No</b>	<b>Number of Events</b>
a. Paid Advertising	no	0
b. Public Service Announcement	yes	3
c. Bill Inserts / Newsletters / Brochures	yes	2
d. Bill showing water usage in comparison to previous	yes	



year's usage		
e. Demonstration Gardens	yes	2
f. Special Events, Media Events	yes	2
g. Speaker's Bureau	no	0
h. Program to coordinate with other government agencies, industry and public interest groups and media	yes	

## B. Conservation Information Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	1400	1400
2. Actual Expenditures	4930	

## C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No
  - a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

## D. Comments

Six Flags Marine World Display is our most active public outreach effort. This project will be modified and updated this year, requiring financial and staff resources from the Cities in Solano County.

## BMP 08: School Education Programs

Reporting Unit: **City of Fairfield, Dept of Public Works**      BMP Form Status: **100% Complete**      Year: **2003**

## A. Implementation

1. Has your agency implemented a school information program to promote water conservation? yes
2. Please provide information on your school programs (by grade level):

Grade	Are grade-appropriate materials distributed?	No. of class presentations	No. of students reached	No. of teachers' workshops
Grades K-3rd	yes	15	548	3
Grades 4th-6th	yes	0	338	4
Grades 7th-8th	yes	0	250	0
High School	yes	0	0	0

3. Did your Agency's materials meet state education framework requirements? yes

4. When did your Agency begin implementing this program? 1/1/1992

## B. School Education Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	1400	1400
2. Actual Expenditures	11750	

## C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No
  - a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

## D. Comments



Our program focuses on providing state certified, age-appropriate materials into the hands of teachers. There is limited classroom instruction by program staff.

## BMP 09: Conservation Programs for CII Accounts

Reporting Unit: **City of Fairfield, Dept of Public Works** BMP Form Status: **100% Complete** Year: **2003**

### A. Implementation

- |  |     |
|--|-----|
| 1. Has your agency identified and ranked COMMERCIAL customers according to use?    | yes |
| 2. Has your agency identified and ranked INDUSTRIAL customers according to use?    | yes |
| 3. Has your agency identified and ranked INSTITUTIONAL customers according to use? | yes |

### Option A: CII Water Use Survey and Customer Incentives Program

- |   |     |
|---|-----|
| 4. Is your agency operating a CII water use survey and customer incentives program for the purpose of complying with BMP 9 under this option? | yes |
|---|-----|

CII Surveys	Commercial Accounts	Industrial Accounts	Institutional Accounts
a. Number of New Surveys Offered	1	0	0
b. Number of New Surveys Completed	1	0	0
c. Number of Site Follow-ups of Previous Surveys (within 1 yr)	0	0	0
d. Number of Phone Follow-ups of Previous Surveys (within 1 yr)	0	0	0

CII Survey Components	Commercial Accounts	Industrial Accounts	Institutional Accounts
e. Site Visit	yes	yes	yes
f. Evaluation of all water-using apparatus and processes	yes	yes	yes
g. Customer report identifying recommended efficiency measures, paybacks and agency incentives	no	no	no

Agency CII Customer Incentives	Budget (\$/Year)	No. Awarded to Customers	Total \$ Amount Awarded
h. Rebates	0	0	0
i. Loans	0	0	0
j. Grants	0	0	0
k. Others	0	0	0

### Option B: CII Conservation Program Targets

- |   |    |
|---|----|
| 5. Does your agency track CII program interventions and water savings for the purpose of complying with BMP 9 under this option?    | no |
| 6. Does your agency document and maintain records on how savings were realized and the method of calculation for estimated savings? | no |
| 7. Estimated annual savings (AF/yr) from site-verified actions taken by agency since 1991.  | 0  |
| 8. Estimated annual savings (AF/yr) from non-site-verified actions taken by   |    |



agency since 1991.

## **B. Conservation Program Expenditures for CII Accounts**

	<b>This Year</b>	<b>Next Year</b>
1. Budgeted Expenditures	4903	4903
2. Actual Expenditures	372	

## **C. "At Least As Effective As"**

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No
  - a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

## **D. Comments**

Solano County Water Agency (the wholesale water provider in the county) is currently in the process of funding a study for improved implementation of this BMP. We anticipate improved implementation this next reporting period.

## **BMP 09a: CII ULFT Water Savings**

Reporting Unit:

**City of Fairfield, Dept of Public Works**

BMP Form Status:  
**100% Complete**

Year:  
**2003**

1. Did your agency implement a CII ULFT replacement program in the reporting year?  
If No, please explain why on Line B. 10.

No

## **A. Targeting and Marketing**

1. What basis does your agency use to target customers for participation in this program? Check all that apply.

a. Describe which method you found to be the most effective overall, and which was the most effective per dollar expended.

2. How does your agency advertise this program? Check all that apply.

a. Describe which method you found to be the most effective overall, and which was the most effective per dollar expended.

## **B. Implementation**

1. Does your agency keep and maintain customer participant information? (Read the Help information for a complete list of all the information for this BMP.)
2. Would your agency be willing to share this information if the CUWCC did a study to evaluate the program on behalf of your agency?



3. What is the total number of customer accounts participating in the program during the last year ?

CII Subsector	Number of Toilets Replaced					Type Not Specified
	Standard Gravity Tank	Air Assisted	Valve Floor Mount	Valve Wall Mount		
4.						
a. Offices						0
b. Retail / Wholesale						0
c. Hotels						0
d. Health						0
e. Industrial						0
f. Schools: K to 12						0
g. Eating						0
h. Government						0
i. Churches						0
j. Other						0

5. Program design.

6. Does your agency use outside services to implement this program?

a. If yes, check all that apply.

7. Participant tracking and follow-up.

8. Based on your program experience, please rank on a scale of 1 to 5, with 1 being the least frequent cause and 5 being the most frequent cause, the following reasons why customers refused to participate in the program.

a. Disruption to business

b. Inadequate payback

c. Inadequate ULFT performance



d. Lack of funding

e. American's with Disabilities Act

f. Permitting

g. Other. Please describe in B. 9.

9. Please describe general program acceptance/resistance by customers, obstacles to implementation, and other issues affecting program implementation or effectiveness.

10. Please provide a general assessment of the program for this reporting year. Did your program achieve its objectives? Were your targeting and marketing approaches effective? Were program costs in line with expectations and budgeting?

We have done a cost effective analysis of UFLT's and have found that they are not cost effective.

## **C. Conservation Program Expenditures for CII ULFT**

### 1. CII ULFT Program: Annual Budget & Expenditure Data

	<b>Budgeted</b>	<b>Actual Expenditure</b>
a. Labor		
b. Materials		
c. Marketing & Advertising		
d. Administration & Overhead		
e. Outside Services		
f. Total	0	0

### 2. CII ULFT Program: Annual Cost Sharing

a. Wholesale agency contribution

b. State agency contribution



c. Federal agency  
contribution

d. Other contribution

e. Total 0

#### **D. Comments**

The City of Fairfield prepared an exemption for this BMP as it is not cost effective.

### **BMP 11: Conservation Pricing**

Reporting Unit:	BMP Form Status:	Year:
<b>City of Fairfield, Dept of Public Works</b>	<b>100% Complete</b>	<b>2003</b>

#### **A. Implementation**

##### **Rate Structure Data Volumetric Rates for Water Service by Customer Class**

##### **1. Residential**

a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Non-volumetric Flat Rate
c. Total Revenue from Volumetric Rates	\$8264926
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$13300635

##### **2. Commercial**

a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Uniform
c. Total Revenue from Volumetric Rates	\$2096218
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$698458

##### **3. Industrial**

a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Uniform
c. Total Revenue from Volumetric Rates	\$1867912
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$462383

##### **4. Institutional / Government**

a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Uniform
c. Total Revenue from Volumetric Rates	\$701590
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$358640

##### **5. Irrigation**

a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from Volumetric Rates	\$1263075
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$29544

##### **6. Other**



- |  |          |
|--|----------|
| a. Water Rate Structure  | Uniform  |
| b. Sewer Rate Structure  | Uniform  |
| c. Total Revenue from Volumetric Rates                                       | \$245673 |
| d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources | \$218025 |

#### **B. Conservation Pricing Program Expenditures**

	<b>This Year</b>	<b>Next Year</b>
1. Budgeted Expenditures	0	0
2. Actual Expenditures	0	

#### **C. "At Least As Effective As"**

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No

- a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

#### **D. Comments**

Non-residential rates for sewer change into a calculated formula once volume exceeds 5000 gallons per day. These rates are typically substantially higher than the uniform rate.

### **BMP 12: Conservation Coordinator**

Reporting Unit:	BMP Form Status:	Year:
<b>City of Fairfield, Dept of Public Works</b>	<b>100% Complete</b>	<b>2003</b>

#### **A. Implementation**

- |   |  |
|---|--|
| 1. Does your Agency have a conservation coordinator?  | yes  |
| 2. Is this a full-time position?  | yes  |
| 3. If no, is the coordinator supplied by another agency with which you cooperate in a regional conservation program ? |  |
| 4. Partner agency's name:   | none   |
| 5. If your agency supplies the conservation coordinator:  |  |
| a. What percent is this conservation coordinator's position?  | 60%  |
| b. Coordinator's Name   | Andrew Walker  |
| c. Coordinator's Title  | Senior Management Analyst                                      |
| d. Coordinator's Experience and Number of Years   | Masters Degree in Public Administration, 8 years of experience |
| e. Date Coordinator's position was created (mm/dd/yyyy)   | 1/1/1991   |
| 6. Number of conservation staff, including Conservation Coordinator.  | 6  |

#### **B. Conservation Staff Program Expenditures**

	<b>This Year</b>	<b>Next Year</b>
1. Budgeted Expenditures	5000	10000
2. Actual Expenditures	14314	

#### **C. "At Least As Effective As"**

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no
- a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

#### **D. Comments**



## BMP 13: Water Waste Prohibition

Reporting Unit: **City of Fairfield, Dept of Public Works**      BMP Form Status: **100% Complete**      Year: **2003**

### A. Requirements for Documenting BMP Implementation

1. Is a water waste prohibition ordinance in effect in your service area? yes
  - a. If YES, describe the ordinance:  
Article XV. Water Misuse Prevention Program Declaration: ..."the general welfare requires that the water resources available to the City be put to the maximum beneficial use possible and the misuse or unreasonable use or unreasonable method of use of water be prevented."
2. Is a copy of the most current ordinance(s) on file with CUWCC? yes
  - a. List local jurisdictions in your service area in the first text box and water waste ordinance citations in each jurisdiction in the second text box:  
-City of Fairfield City Code Section 22 Article XV

### B. Implementation

1. Indicate which of the water uses listed below are prohibited by your agency or service area.
  - a. Gutter flooding yes
  - b. Single-pass cooling systems for new connections yes
  - c. Non-recirculating systems in all new conveyor or car wash systems no
  - d. Non-recirculating systems in all new commercial laundry systems no
  - e. Non-recirculating systems in all new decorative fountains no
  - f. Other, please name yes  
daytime irrigation restrictions, requirement to fix controlled water leaks
2. Describe measures that prohibit water uses listed above:  
A. Failure by any customer to repair a controllable leak shall be prohibited. B. Landscape irrigation shall occur only before 12:00 noon or after 6:00 pm. C. All new installation of cooling systems using potable water as a coolant shall be recycling systems only.

#### Water Softeners:

3. Indicate which of the following measures your agency has supported in developing state law:
  - a. Allow the sale of more efficient, demand-initiated regenerating DIR models. no
  - b. Develop minimum appliance efficiency standards that:
    - i.) Increase the regeneration efficiency standard to at least 3,350 grains of hardness removed per pound of common salt used. no
    - ii.) Implement an identified maximum number of gallons discharged per gallon of soft water produced. no
  - c. Allow local agencies, including municipalities and special districts, to set more stringent standards and/or to ban on-site regeneration of water softeners if it is demonstrated and found by the agency governing board that there is an adverse effect on the reclaimed water or groundwater supply. no
4. Does your agency include water softener checks in home water audit programs? no
5. Does your agency include information about DIR and exchange-type water softeners in educational efforts to encourage replacement of less efficient timer models? no

### C. Water Waste Prohibition Program Expenditures

This Year	Next Year
-----------	-----------



1. Budgeted Expenditures	500	500
2. Actual Expenditures	0	

#### **D. "At Least As Effective As"**

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

#### **E. Comments**

Every year a list is generated of the top 10% water users in our area. A letter is sent notifying them that they are in this group. The letter is not a citation, but it does notify the customer that they are using a large amount of water, and an in home audit and water saving devices are offered.

### **BMP 14: Residential ULFT Replacement Programs**

Reporting Unit: City of Fairfield, Dept of Public Works      BMP Form Status: 100% Complete      Year: 2003

#### **A. Implementation**

	Single-Family Accounts	Multi-Family Units
1. Does your Agency have program(s) for replacing high-water-using toilets with ultra-low flush toilets?	no	no

#### **Number of Toilets Replaced by Agency Program During Report Year**

Replacement Method	SF Accounts	MF Units
2. Rebate		
3. Direct Install		
4. CBO Distribution		
5. Other		

#### **Total**

6. Describe your agency's ULFT program for single-family residences.
7. Describe your agency's ULFT program for multi-family residences.
8. Is a toilet retrofit on resale ordinance in effect for your service area? no
9. List local jurisdictions in your service area in the left box and ordinance citations in each jurisdiction in the right box:

#### **B. Residential ULFT Program Expenditures**

	This Year	Next Year
1. Budgeted Expenditures	0	0
2. Actual Expenditures	500	

#### **C. "At Least As Effective As"**

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

#### **D. Comments**

The City of Fairfield prepared an exemption for this BMP as it is not cost effective.



## Water Supply & Reuse

Reporting Unit: City of Fairfield, Dept of Public Works  
Year: 2002

### Water Supply Source Information

Supply Source Name	Quantity (AF) Supplied	Supply Type
Solano Project	14469	Local Watershed
North Bay Aqueduct	9115	Local Watershed

**Total AF: 23584**

## Accounts & Water Use

Reporting Unit Name: City of Fairfield, Dept of Public Works  
Submitted to CUWCC: 01/16/2003  
Year: 2002

### A. Service Area Population Information:

1. Total service area population 100226

### B. Number of Accounts and Water Deliveries (AF)

Type	Metered	Water Deliveries (AF)	Unmetered	Water Deliveries (AF)
	No. of Accounts		No. of Accounts	
1. Single-Family	22964	9932	0	0
2. Multi-Family	471	2278	0	0
3. Commercial	881	1678	0	0
4. Industrial	46	2980	0	0
5. Institutional	138	756	0	0
6. Dedicated Irrigation	660	3544	0	0
7. Recycled Water	0	0	0	0
8. Other	391	306	0	0
9. Unaccounted	NA	1648	NA	0
<b>Total</b>	<b>25551</b>	<b>23122</b>	<b>0</b>	<b>0</b>

**Metered                      Unmetered**

## BMP 01: Water Survey Programs for Single-Family and Multi-Family Residential Customers

Reporting Unit: City of Fairfield, Dept of Public Works  
BMP Form Status: 100% Complete  
Year: 2002

### A. Implementation

1. Based on your signed MOU date, 03/20/1992, your Agency STRATEGY DUE DATE is: 03/20/1994

2. Has your agency developed and implemented a targeting/ marketing strategy for SINGLE-FAMILY residential water use surveys? yes



- a. If YES, when was it implemented? 6/1/1998
3. Has your agency developed and implemented a targeting/ marketing strategy for MULTI-FAMILY residential water use surveys? yes
- a. If YES, when was it implemented? 6/1/1996

## B. Water Survey Data

Survey Counts:	Single Family Accounts	Multi-Family Units
1. Number of surveys offered:	31118	1
2. Number of surveys completed:	236	1
<b>Indoor Survey:</b>		
3. Check for leaks, including toilets, faucets and meter checks	yes	no
4. Check showerhead flow rates, aerator flow rates, and offer to replace or recommend replacement, if necessary	yes	no
5. Check toilet flow rates and offer to install or recommend installation of displacement device or direct customer to ULFT replacement program, as necessary; replace leaking toilet flapper, as necessary	yes	no
<b>Outdoor Survey:</b>		
6. Check irrigation system and timers	yes	no
7. Review or develop customer irrigation schedule	yes	no
8. Measure landscaped area (Recommended but not required for surveys)	yes	no
9. Measure total irrigable area (Recommended but not required for surveys)	no	no
10. Which measurement method is typically used (Recommended but not required for surveys)	Measuring Tape	
11. Were customers provided with information packets that included evaluation results and water savings recommendations?	yes	yes
12. Have the number of surveys offered and completed, survey results, and survey costs been tracked?	yes	yes
a. If yes, in what form are surveys tracked?		spreadsheet
b. Describe how your agency tracks this information.	Spreadsheet with all information gathered from survey is logged and kept.	

## C. Water Survey Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	19941	21294
2. Actual Expenditures	31069	

## D. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No
- a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

## E. Comments

## BMP 02: Residential Plumbing Retrofit

Reporting Unit: City of Fairfield, Dept of      BMP Form Status: 100% Complete      Year: 2002



## Public Works

### A. Implementation

1. Is there an enforceable ordinance in effect in your service area requiring replacement of high-flow showerheads and other water use fixtures with their low-flow counterparts? no
  - a. If YES, list local jurisdictions in your service area and code or ordinance in each:
2. Has your agency satisfied the 75% saturation requirement for single-family housing units? yes
3. Estimated percent of single-family households with low-flow showerheads: 82%
4. Has your agency satisfied the 75% saturation requirement for multi-family housing units? no
5. Estimated percent of multi-family households with low-flow showerheads: 75%
6. If YES to 2 OR 4 above, please describe how saturation was determined, including the dates and results of any survey research.  
A showerhead study was conducted May through August of 2001. Random lists were generated and some homes were visited on the lists. At each home one or more showerhead was tested and recorded. A total of 96 homes were tested. IT was found that 82.6% of the homes visited were at or below 2.5 GPMs and 17.4% were above 2.5 GPMs.

### B. Low-Flow Device Distribution Information

1. Has your agency developed a targeting/ marketing strategy for distributing low-flow devices? yes
  - a. If YES, when did your agency begin implementing this strategy? 1/1/1988
  - b. Describe your targeting/ marketing strategy.  
In our Water Quality Report that is sent to every home in our billing area, we include an offer for free water saving devices including low flow showerheads, kitchen and bathroom sink aerators, and toilet bags. Also at our home surveys we offer the same hardware.

Low-Flow Devices Distributed/ Installed	SF Accounts	MF Units
2. Number of low-flow showerheads distributed:	155	25
3. Number of toilet-displacement devices distributed:	83	25
4. Number of toilet flappers distributed:	0	0
5. Number of faucet aerators distributed:	308	25
6. Does your agency track the distribution and cost of low-flow devices?		yes
a. If YES, in what format are low-flow devices tracked?		Spreadsheet
b. If yes, describe your tracking and distribution system :		
As each house is visited, or as Fairfield residents come to the office to get water saving devices, a log is kept of hardware given out. Invoices of purchases are kept to track expenditures.		

### C. Low-Flow Device Distribution Expenditures

	This Year	Next Year
1. Budgeted Expenditures	180	100
2. Actual Expenditures	10064	

### D. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No



- a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

## E. Comments

Product placement is an integrated part of our water survey program, which continues forward. New marketing devices are also included (hose nozzles).

## BMP 03: System Water Audits, Leak Detection and Repair

Reporting Unit:

**City of Fairfield, Dept of Public Works**

BMP Form Status:  
**100% Complete**

Year:  
**2002**

### A. Implementation

1. Has your agency completed a pre-screening system audit for this reporting year? yes
2. If YES, enter the values (AF/Year) used to calculate verifiable use as a percent of total production:
  - a. Determine metered sales (AF) 19876
  - b. Determine other system verifiable uses (AF) 1598
  - c. Determine total supply into the system (AF) 23122
  - d. Using the numbers above, if (Metered Sales + Other Verifiable Uses) / Total Supply is < 0.9 then a full-scale system audit is required. 0.93
3. Does your agency keep necessary data on file to verify the values used to calculate verifiable uses as a percent of total production? yes
4. Did your agency complete a full-scale audit during this report year? yes
5. Does your agency maintain in-house records of audit results or the completed AWWA audit worksheets for the completed audit? yes
6. Does your agency operate a system leak detection program? yes
  - a. If yes, describe the leak detection program:  
The City addresses leak detection on a periodic basis. The program is tied to street overlay work and focuses on recurrent leaks within a geographic area. Periodically water distribution staff will also review entire subdivisions based on frequent leak detection.

### B. Survey Data

1. Total number of miles of distribution system line. 300.9
2. Number of miles of distribution system line surveyed. 10

### C. System Audit / Leak Detection Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	30000	30000
2. Actual Expenditures	32131	

### D. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No
  - a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."



## E. Comments

### BMP 04: Metering with Commodity Rates for all New Connections and Retrofit of Existing

Reporting Unit:

City of Fairfield, Dept of  
Public Works

BMP Form Status:

100% Complete

Year:

2002

#### A. Implementation

1. Does your agency require meters for all new connections and bill by volume-of-use? yes
2. Does your agency have a program for retrofitting existing unmetered connections and bill by volume-of-use? no
  - a. If YES, when was the plan to retrofit and bill by volume-of-use existing unmetered connections completed?
  - b. Describe the program:
3. Number of previously unmetered accounts fitted with meters during report year. 0

#### B. Feasibility Study

1. Has your agency conducted a feasibility study to assess the merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters? no
  - a. If YES, when was the feasibility study conducted? (mm/dd/yy)
  - b. Describe the feasibility study:
2. Number of CII accounts with mixed-use meters. 102
3. Number of CII accounts with mixed-use meters retrofitted with dedicated irrigation meters during reporting period. 0

#### C. Meter Retrofit Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	0	0
2. Actual Expenditures	0	

#### D. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No
  - a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as." The city has long had a volume only rate for irrigation meters. This structure allows for one of three rates - irrigation, interruptible irrigation service, and special irrigation (in anticipation of recycled water service). We have also set up three special service areas within our community to be served raw water from the Solano Irrigation District. These structures have encouraged private owners and public agencies to use more controlled use of their irrigation water within the city. Irrigation only service has increased from just over 1800 AF per year in 1990 to just under 4200 AF in 2000. Many of the accounts are substitution accounts as well, moving from a multi-use category to an irrigation only category. These efforts allow irrigation managers to more easily track and manage the water consumption and cost of their landscaping.

## E. Comments

The City benefits from a number of water projects completed prior to this year.



## BMP 05: Large Landscape Conservation Programs and Incentives

Reporting Unit: **City of Fairfield, Dept of Public Works**      BMP Form Status: **100% Complete**      Year: **2002**

### A. Water Use Budgets

- |  |     |
|--|-----|
| 1. Number of Dedicated Irrigation Meter Accounts:  | 660 |
| 2. Number of Dedicated Irrigation Meter Accounts with Water Budgets:                       | 0   |
| 3. Budgeted Use for Irrigation Meter Accounts with Water Budgets (AF):                     | 0   |
| 4. Actual Use for Irrigation Meter Accounts with Water Budgets (AF):                       | 0   |
| 5. Does your agency provide water use notices to accounts with budgets each billing cycle? | no  |

### B. Landscape Surveys

- |  |          |
|--|----------|
| 1. Has your agency developed a marketing / targeting strategy for landscape surveys?   | yes      |
| a. If YES, when did your agency begin implementing this strategy?  | 5/1/2002 |
| b. Description of marketing / targeting strategy:<br>The City began focusing on the Landscape Maintenance Districts controlled by the City and contracted for irrigation and maintenance |          |
| 2. Number of Surveys Offered.  | 4        |
| 3. Number of Surveys Completed.  | 4        |
| 4. Indicate which of the following Landscape Elements are part of your survey:   |          |
| a. Irrigation System Check   | yes      |
| b. Distribution Uniformity Analysis  | no       |
| c. Review / Develop Irrigation Schedules   | yes      |
| d. Measure Landscape Area  | yes      |
| e. Measure Total Irrigable Area  | no       |
| f. Provide Customer Report / Information   | yes      |
| 5. Do you track survey offers and results?   | yes      |
| 6. Does your agency provide follow-up surveys for previously completed surveys?  | no       |
| a. If YES, describe below:   |          |

### C. Other BMP 5 Actions

- |   |    |
|---|----|
| 1. An agency can provide mixed-use accounts with ETo-based landscape budgets in lieu of a large landscape survey program. Does your agency provide mixed-use accounts with landscape budgets? | no |
| 2. Number of CII mixed-use accounts with landscape budgets.   | 0  |
| 3. Do you offer landscape irrigation training?  | no |
| 4. Does your agency offer financial incentives to improve landscape water use efficiency?   | no |

Type of Financial Incentive:	Budget (Dollars/ Year)	Number Awarded to Customers	Total Amount Awarded
a. Rebates			
b. Loans			



c. Grants

5. Do you provide landscape water use efficiency information to new customers and customers changing services?

yes

a. If YES, describe below:

All commercial, institutional and industrial insulations must go through the City's plan check process and comply with the water efficient landscaping ordinance. This ordinance requires a new use to establish a water budget based on the landscape design and applicable evapotranspiration (ET) for the City of Fairfield. This ordinance follows the guidelines esptablished by the State of California prior to the adoption in 1992.

6. Do you have irrigated landscaping at your facilities?

yes

a. If yes, is it water-efficient?

yes

b. If yes, does it have dedicated irrigation metering?

yes

7. Do you provide customer notices at the start of the irrigation season?

no

8. Do you provide customer notices at the end of the irrigation season?

no

#### D. Landscape Conservation Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	4255	64615
2. Actual Expenditures	31985	

#### E. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP?

No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

#### F. Comments

This coming year, 2003, the City will be involved in an Eto Central Irrigation and weather station project at one of the City parks. Our intent is to provide weather station backbones in the separate weather climates of the community. This information can then feed irrigation controllers for more effective watering in Fairfield.

### BMP 06: High-Efficiency Washing Machine Rebate Programs

Reporting Unit:

City of Fairfield, Dept of Public Works

BMP Form Status:

100% Complete

Year:

2002

#### A. Implementation

1. Do any energy service providers or waste water utilities in your service area offer rebates for high-efficiency washers?

yes

a. If YES, describe the offerings and incentives as well as who the energy/waste water utility provider is.

PG&E offered a rebate for approximately \$50 that was intermittently offered over the course of the year.

2. Does your agency offer rebates for high-efficiency washers?

yes

3. What is the level of the rebate?

25

4. Number of rebates awarded.

0

#### B. Rebate Program Expenditures

This Year

Next Year



1. Budgeted Expenditures	175	175
2. Actual Expenditures	434	

### C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no
- a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

### D. Comments

The City of Fairfield has prepared an exemption for this BMP as it is not cost effective at a rate that will make a significant difference to the purchasing public.

## BMP 07: Public Information Programs

Reporting Unit:

**City of Fairfield, Dept of  
Public Works**

BMP Form Status:  
**100% Complete**

Year:  
**2002**

### A. Implementation

1. Does your agency maintain an active public information program to promote and educate customers about water conservation? yes

a. If YES, describe the program and how it's organized.

We have a very active program that reaches out to the community in many ways. We have bill inserts, brochures, public service announcements, participation in special events, articles in the Fairfield Observer, a newsletter sent out to all City residents and our Water Quality Report is also sent to every water user in our City.

2. Indicate which and how many of the following activities are included in your public information program.

Public Information Program Activity	Yes/No	Number of Events
a. Paid Advertising	no	0
b. Public Service Announcement	yes	6
c. Bill Inserts / Newsletters / Brochures	yes	2
d. Bill showing water usage in comparison to previous year's usage	yes	
e. Demonstration Gardens	yes	2
f. Special Events, Media Events	yes	1
g. Speaker's Bureau	no	0
h. Program to coordinate with other government agencies, industry and public interest groups and media	yes	

### B. Conservation Information Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	1400	1400
2. Actual Expenditures	7452	

### C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No
- a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

### D. Comments

Six Flags Marine World Display is our most active public outreach effort.



This project will be modified and updated this year, requiring financial and staff resources from the City of Fairfield.

## BMP 08: School Education Programs

Reporting Unit: **City of Fairfield, Dept of Public Works**      BMP Form Status: **100% Complete**      Year: **2002**

### A. Implementation

1. Has your agency implemented a school information program to promote water conservation? yes

2. Please provide information on your school programs (by grade level):

Grade	Are grade-appropriate materials distributed?	No. of class presentations	No. of students reached	No. of teachers' workshops
Grades K-3rd	yes	46	928	5
Grades 4th-6th	yes	17	495	2
Grades 7th-8th	yes	10	120	1
High School	yes	13	90	0

3. Did your Agency's materials meet state education framework requirements? yes

4. When did your Agency begin implementing this program? 1/1/1992

### B. School Education Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	1400	1400
2. Actual Expenditures	7368	

### C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

### D. Comments

Our program focuses on providing state certified, age-appropriate materials into the hands of teachers. There is limited classroom instruction by program staff.

## BMP 09: Conservation Programs for CII Accounts

Reporting Unit: **City of Fairfield, Dept of Public Works**      BMP Form Status: **100% Complete**      Year: **2002**

### A. Implementation

- Has your agency identified and ranked COMMERCIAL customers according to use? yes
- Has your agency identified and ranked INDUSTRIAL customers according to use? yes
- Has your agency identified and ranked INSTITUTIONAL customers according to use? yes



## Option A: CII Water Use Survey and Customer Incentives Program

4. Is your agency operating a CII water use survey and customer incentives program for the purpose of complying with BMP 9 under this option? yes

<b>CII Surveys</b>	<b>Commercial Accounts</b>	<b>Industrial Accounts</b>	<b>Institutional Accounts</b>
a. Number of New Surveys Offered	1	0	0
b. Number of New Surveys Completed	1	0	0
c. Number of Site Follow-ups of Previous Surveys (within 1 yr)	0	0	0
d. Number of Phone Follow-ups of Previous Surveys (within 1 yr)	0	0	0
<b>CII Survey Components</b>	<b>Commercial Accounts</b>	<b>Industrial Accounts</b>	<b>Institutional Accounts</b>
e. Site Visit	yes	yes	yes
f. Evaluation of all water-using apparatus and processes	yes	yes	yes
g. Customer report identifying recommended efficiency measures, paybacks and agency incentives	no	no	no
<b>Agency CII Customer Incentives</b>	<b>Budget (\$/Year)</b>	<b>No. Awarded to Customers</b>	<b>Total \$ Amount Awarded</b>
h. Rebates	0	0	0
i. Loans	0	0	0
j. Grants	0	0	0
k. Others	0	0	0

## Option B: CII Conservation Program Targets

5. Does your agency track CII program interventions and water savings for the purpose of complying with BMP 9 under this option? no

6. Does your agency document and maintain records on how savings were realized and the method of calculation for estimated savings? no

7. Estimated annual savings (AF/yr) from site-verified actions taken by agency since 1991. 0

8. Estimated annual savings (AF/yr) from non-site-verified actions taken by agency since 1991. 932

### B. Conservation Program Expenditures for CII Accounts

	<b>This Year</b>	<b>Next Year</b>
1. Budgeted Expenditures	4903	4903
2. Actual Expenditures	399	

### C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No

a. If YES, please explain in detail how your implementation of this BMP



differs from Exhibit 1 and why you consider it to be "at least as effective as."

## D. Comments

### BMP 09a: CII ULFT Water Savings

Reporting Unit:

**City of Fairfield, Dept of  
Public Works**

BMP Form Status:

**100% Complete**

Year:

**2002**

1. Did your agency implement a CII ULFT  
replacement program in the reporting year?

If No, please explain why on Line B. 10.

No

### A. Targeting and Marketing

1. What basis does your agency  
use to target customers for  
participation in this program?  
Check all that apply.

a. Describe which method you found to be the most effective overall,  
and which was the most effective per dollar expended.

2. How does your agency  
advertise this program? Check  
all that apply.

a. Describe which method you found to be the most effective overall,  
and which was the most effective per dollar expended.

### B. Implementation

1. Does your agency keep and maintain customer participant  
information? (Read the Help information for a complete list of  
all the information for this BMP.)

2. Would your agency be willing to share this information if the  
CUWCC did a study to evaluate the program on behalf of your  
agency?

3. What is the total number of customer accounts participating  
in the program during the last year ?

**CII**

**Subsector**

**Number of Toilets Replaced**

	<b>Standard Gravity Tank</b>	<b>Air Assisted</b>	<b>Valve Floor Mount</b>	<b>Valve Wall Mount</b>	<b>Type Not Specified</b>
4.					
a. Offices					

0



b. Retail / Wholesale	0
c. Hotels	0
d. Health	0
e. Industrial	0
f. Schools: K to 12	0
g. Eating	0
h. Government	0
i. Churches	0
j. Other	0

5. Program design.

6. Does your agency use outside services to implement this program?

a. If yes, check all that apply.

7. Participant tracking and follow-up.

8. Based on your program experience, please rank on a scale of 1 to 5, with 1 being the least frequent cause and 5 being the most frequent cause, the following reasons why customers refused to participate in the program.

a. Disruption to business

b. Inadequate payback

c. Inadequate ULFT performance

d. Lack of funding

e. American's with Disabilities Act

f. Permitting

g. Other. Please describe in B. 9.



9. Please describe general program acceptance/resistance by customers, obstacles to implementation, and other issues affecting program implementation or effectiveness.

10. Please provide a general assessment of the program for this reporting year. Did your program achieve its objectives? Were your targeting and marketing approaches effective? Were program costs in line with expectations and budgeting?

We have done a cost effective analysis of UFLT's and have found that they are not cost effective.

## C. Conservation Program Expenditures for CII ULFT

### 1. CII ULFT Program: Annual Budget & Expenditure Data

	Budgeted	Actual Expenditure
a. Labor		
b. Materials		
c. Marketing & Advertising		
d. Administration & Overhead		
e. Outside Services		
f. Total	0	0

### 2. CII ULFT Program: Annual Cost Sharing

a. Wholesale agency contribution	
b. State agency contribution	
c. Federal agency contribution	
d. Other contribution	
e. Total	0

## D. Comments

The City of Fairfield prepared an exemption for this BMP as it is not cost



effective.

## **BMP 11: Conservation Pricing**

Reporting Unit:

**City of Fairfield, Dept of Public Works**

BMP Form Status:

**100% Complete**

Year:

**2002**

### **A. Implementation**

#### **Rate Structure Data Volumetric Rates for Water Service by Customer Class**

##### **1. Residential**

- |  |                          |
|--|--------------------------|
| a. Water Rate Structure  | Uniform                  |
| b. Sewer Rate Structure  | Non-volumetric Flat Rate |
| c. Total Revenue from Volumetric Rates                                       | \$7837208                |
| d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources | \$12617229               |

##### **2. Commercial**

- |  |           |
|--|-----------|
| a. Water Rate Structure  | Uniform   |
| b. Sewer Rate Structure  | Uniform   |
| c. Total Revenue from Volumetric Rates                                       | \$2056911 |
| d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources | \$675006  |

##### **3. Industrial**

- |  |           |
|--|-----------|
| a. Water Rate Structure  | Uniform   |
| b. Sewer Rate Structure  | Uniform   |
| c. Total Revenue from Volumetric Rates                                       | \$1775780 |
| d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources | \$434405  |

##### **4. Institutional / Government**

- |  |          |
|--|----------|
| a. Water Rate Structure  | Uniform  |
| b. Sewer Rate Structure  | Uniform  |
| c. Total Revenue from Volumetric Rates                                       | \$738613 |
| d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources | \$341098 |

##### **5. Irrigation**

- |  |                      |
|--|----------------------|
| a. Water Rate Structure  | Uniform              |
| b. Sewer Rate Structure  | Service Not Provided |
| c. Total Revenue from Volumetric Rates                                       | \$1301208            |
| d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources | \$29252              |

##### **6. Other**

- |  |          |
|--|----------|
| a. Water Rate Structure  | Uniform  |
| b. Sewer Rate Structure  | Uniform  |
| c. Total Revenue from Volumetric Rates                                       | \$209742 |
| d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources | \$215922 |

### **B. Conservation Pricing Program Expenditures**

	<b>This Year</b>	<b>Next Year</b>
1. Budgeted Expenditures	0	0
2. Actual Expenditures	0	

### **C. "At Least As Effective As"**



1. Is your AGENCY implementing an "at least as effective as" variant of this BMP?

No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

#### D. Comments

Non-residential rates for sewer change into a calculated formula once volume exceeds 5000 gallons per day. These rates are typically substantially higher than the uniform rate.

### BMP 12: Conservation Coordinator

Reporting Unit:	BMP Form Status:	Year:
City of Fairfield, Dept of Public Works	100% Complete	2002

#### A. Implementation

1. Does your Agency have a conservation coordinator? yes
2. Is this a full-time position? yes
3. If no, is the coordinator supplied by another agency with which you cooperate in a regional conservation program ?
4. Partner agency's name: none
5. If your agency supplies the conservation coordinator:
  - a. What percent is this conservation coordinator's position? 60%
  - b. Coordinator's Name Andrew Walker
  - c. Coordinator's Title Senior Management Analyst
  - d. Coordinator's Experience and Number of Years Masters Degree in Public Administration, 7 years of experience
  - e. Date Coordinator's position was created (mm/dd/yyyy) 1/1/1991
6. Number of conservation staff, including Conservation Coordinator. 8

#### B. Conservation Staff Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	5000	5000
2. Actual Expenditures	10235	

#### C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no
- a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

#### D. Comments

### BMP 13: Water Waste Prohibition

Reporting Unit:	BMP Form Status:	Year:
City of Fairfield, Dept of Public Works	100% Complete	2002

#### A. Requirements for Documenting BMP Implementation

1. Is a water waste prohibition ordinance in effect in your service area? yes
  - a. If YES, describe the ordinance:  
Article XV. Water Misuse Prevention Program Declaration: "...the general welfare requires that the water resources available to the City be put to the maximum beneficial use possible and the misuse or unreasonable use or unreasonable method of use of water be prevented."



2. Is a copy of the most current ordinance(s) on file with CUWCC? yes
- a. List local jurisdictions in your service area in the first text box and water waste ordinance citations in each jurisdiction in the second text box:
- City of Fairfield City Code Section 22 Article XV

## B. Implementation

1. Indicate which of the water uses listed below are prohibited by your agency or service area.
- a. Gutter flooding yes
  - b. Single-pass cooling systems for new connections yes
  - c. Non-recirculating systems in all new conveyor or car wash systems no
  - d. Non-recirculating systems in all new commercial laundry systems no
  - e. Non-recirculating systems in all new decorative fountains no
  - f. Other, please name yes
- daytime irrigation restrictions, requirement to fix controlled water leaks
2. Describe measures that prohibit water uses listed above:
- A. Failure by any customer to repair a controllable leak shall be prohibited. B. Landscape irrigation shall occur only before 12:00 noon or after 6:00 pm. C. All new installation of cooling systems using potable water as a coolant shall be recycling systems only.

### Water Softeners:

3. Indicate which of the following measures your agency has supported in developing state law:
- a. Allow the sale of more efficient, demand-initiated regenerating DIR models. no
  - b. Develop minimum appliance efficiency standards that:
    - i.) Increase the regeneration efficiency standard to at least 3,350 grains of hardness removed per pound of common salt used. no
    - ii.) Implement an identified maximum number of gallons discharged per gallon of soft water produced. no
  - c. Allow local agencies, including municipalities and special districts, to set more stringent standards and/or to ban on-site regeneration of water softeners if it is demonstrated and found by the agency governing board that there is an adverse effect on the reclaimed water or groundwater supply. no
4. Does your agency include water softener checks in home water audit programs? no
5. Does your agency include information about DIR and exchange-type water softeners in educational efforts to encourage replacement of less efficient timer models? no

## C. Water Waste Prohibition Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	500	500
2. Actual Expenditures	0	

## D. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no
- a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

## E. Comments

Every year a list is generated of the top 10% water users in our area. A letter is sent notifying them that they are in this group. The letter is not a citation, but it does notify the customer that they are using a large amount of water, and an in home audit and water saving devices are offered.



## BMP 14: Residential ULFT Replacement Programs

Reporting Unit:

City of Fairfield, Dept of Public Works

BMP Form Status:

100% Complete

Year:

2002

### A. Implementation

	Single-Family Accounts	Multi-Family Units
1. Does your Agency have program(s) for replacing high-water-using toilets with ultra-low flush toilets?	no	no

**Number of Toilets Replaced by Agency Program During Report Year**

**Replacement Method**

**SF Accounts MF Units**

2. Rebate
3. Direct Install
4. CBO Distribution
5. Other

#### Total

6. Describe your agency's ULFT program for single-family residences.
7. Describe your agency's ULFT program for multi-family residences.
8. Is a toilet retrofit on resale ordinance in effect for your service area? no
9. List local jurisdictions in your service area in the left box and ordinance citations in each jurisdiction in the right box:

### B. Residential ULFT Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	0	0
2. Actual Expenditures	794	

### C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no
  - a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

### D. Comments

The City of Fairfield prepared an exemption for this BMP as it is not cost effective.



## Water Supply & Reuse

Reporting Unit: **City of Fairfield, Dept of Public Works** Year: **2001**

### Water Supply Source Information

Supply Source Name	Quantity (AF) Supplied	Supply Type
Barker Slough - SWP	8490	Local Watershed
Solano Project	14900	Local Watershed

**Total AF: 23390**

## Accounts & Water Use

Reporting Unit Name: **City of Fairfield, Dept of Public Works** Submitted to CUWCC Year: **12/31/2002 2001**

### A. Service Area Population Information:

1. Total service area population 98781

### B. Number of Accounts and Water Deliveries (AF)

Type	Metered	Water Deliveries (AF)	Unmetered	Water Deliveries (AF)
	No. of Accounts		No. of Accounts	
1. Single-Family	22173	9651	0	0
2. Multi-Family	471	2364	0	0
3. Commercial	858	1728	0	0
4. Industrial	46	2780	0	0
5. Institutional	138	624	0	0
6. Dedicated Irrigation	630	3592	0	0
7. Recycled Water	0	0	0	0
8. Other	453	525	0	0
9. Unaccounted	NA	1004	NA	0
<b>Total</b>	<b>24769</b>	<b>22268</b>	<b>0</b>	<b>0</b>

**Metered                      Unmetered**

## BMP 01: Water Survey Programs for Single-Family and Multi-Family Residential Customers

Reporting Unit: **City of Fairfield, Dept of Public Works** BMP Form Status: **100% Complete** Year: **2001**

### A. Implementation

1. Based on your signed MOU date, 03/20/1992, your Agency STRATEGY DUE DATE is: 03/20/1994
2. Has your agency developed and implemented a targeting/ marketing strategy for SINGLE-FAMILY residential water use surveys? yes
- a. If YES, when was it implemented? 6/1/1998



3. Has your agency developed and implemented a targeting/ marketing strategy for MULTI-FAMILY residential water use surveys? yes
- a. If YES, when was it implemented? 6/1/1996

## B. Water Survey Data

Survey Counts:	Single Family Accounts	Multi-Family Units
1. Number of surveys offered:	33593	0
2. Number of surveys completed:	212	0
<b>Indoor Survey:</b>		
3. Check for leaks, including toilets, faucets and meter checks	yes	no
4. Check showerhead flow rates, aerator flow rates, and offer to replace or recommend replacement, if necessary	yes	no
5. Check toilet flow rates and offer to install or recommend installation of displacement device or direct customer to ULFT replacement program, as necessary; replace leaking toilet flapper, as necessary	yes	no
<b>Outdoor Survey:</b>		
6. Check irrigation system and timers	yes	no
7. Review or develop customer irrigation schedule	yes	no
8. Measure landscaped area (Recommended but not required for surveys)	yes	no
9. Measure total irrigable area (Recommended but not required for surveys)	no	no
10. Which measurement method is typically used (Recommended but not required for surveys)	Measuring Tape	
11. Were customers provided with information packets that included evaluation results and water savings recommendations?	yes	yes
12. Have the number of surveys offered and completed, survey results, and survey costs been tracked?	yes	yes
a. If yes, in what form are surveys tracked?	spreadsheet	
b. Describe how your agency tracks this information.	Spreadsheet with all information gathered from survey is logged and kept.	

## C. Water Survey Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	18199	21294
2. Actual Expenditures	26056	

## D. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No
- a. If YES, please explain in detail how your implementation of this BMP differs from



Exhibit 1 and why you consider it to be "at least as effective as."

## E. Comments

This year we focused on targeting high use water accounts. We did 1393 direct mailings to users in the top 10%.

## BMP 02: Residential Plumbing Retrofit

Reporting Unit:	BMP Form Status:	Year:
<b>City of Fairfield, Dept of Public Works</b>	<b>100% Complete</b>	<b>2001</b>

### A. Implementation

1. Is there an enforceable ordinance in effect in your service area requiring replacement of high-flow showerheads and other water use fixtures with their low-flow counterparts? no

a. If YES, list local jurisdictions in your service area and code or ordinance in each:

2. Has your agency satisfied the 75% saturation requirement for single-family housing units? yes

3. Estimated percent of single-family households with low-flow showerheads: 82%

4. Has your agency satisfied the 75% saturation requirement for multi-family housing units? no

5. Estimated percent of multi-family households with low-flow showerheads: 75%

6. If YES to 2 OR 4 above, please describe how saturation was determined, including the dates and results of any survey research.

A showerhead study was conducted May through August of 2001. A random list was generated and homes were visited from the list. At each home one or more showerhead was tested and recorded. A total of 96 houses were tested. It was found that 82.6% of the homes visited were at or below 2.5 GPMs and 17.4% were above 2.5 GPMs.

### B. Low-Flow Device Distribution Information

1. Has your agency developed a targeting/ marketing strategy for distributing low-flow devices? yes

a. If YES, when did your agency begin implementing this strategy? 1/1/1988

b. Describe your targeting/ marketing strategy.

In our water quality report that is sent to every home in our billing area, we include an offer for free water saving devices including low flow showerheads, kitchen and bathroom aerators, and toilet bags. Also at our home surveys we offer the same hardware.

<b>Low-Flow Devices Distributed/ Installed</b>	<b>SF Accounts</b>	<b>MF Units</b>
--	--------------------	-----------------

2. Number of low-flow showerheads distributed:	321	417
--	-----	-----

3. Number of toilet-displacement devices distributed:	247	0
---	-----	---

4. Number of toilet flappers distributed:	0	0
---	---	---

5. Number of faucet aerators distributed:	522	700
---	-----	-----

6. Does your agency track the distribution and cost of low-flow devices? yes

a. If YES, in what format are low-flow devices tracked? Spreadsheet

b. If yes, describe your tracking and distribution system :

As each house is visited, or as Fairfield residents come to the office to get water saving devices, a log is kept of hardware given out. Invoices of purchases are kept to keep track of expenditures.

### C. Low-Flow Device Distribution Expenditures

	<b>This Year</b>	<b>Next Year</b>
1. Budgeted Expenditures	16769	19551
2. Actual Expenditures	12970	

### D. "At Least As Effective As"



1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No
- a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

### E. Comments

## BMP 03: System Water Audits, Leak Detection and Repair

Reporting Unit: City of Fairfield, Dept of Public Works      BMP Form Status: 100% Complete      Year: 2001

### A. Implementation

1. Has your agency completed a pre-screening system audit for this reporting year? yes
2. If YES, enter the values (AF/Year) used to calculate verifiable use as a percent of total production:
- a. Determine metered sales (AF) 19766
  - b. Determine other system verifiable uses (AF) 1497
  - c. Determine total supply into the system (AF) 22267
  - d. Using the numbers above, if (Metered Sales + Other Verifiable Uses) / Total Supply is < 0.9 then a full-scale system audit is required. 0.95
3. Does your agency keep necessary data on file to verify the values used to calculate verifiable uses as a percent of total production? yes
4. Did your agency complete a full-scale audit during this report year? no
5. Does your agency maintain in-house records of audit results or the completed AWWA audit worksheets for the completed audit? no
6. Does your agency operate a system leak detection program? yes
- a. If yes, describe the leak detection program:  
The City addresses leak detection on a periodic basis. The program is tied to street overlay work and focuses on recurrent leaks within a geographic area. Periodically water distribution staff will also review entire subdivisions based on frequent leak detection.

### B. Survey Data

1. Total number of miles of distribution system line. 293.44
2. Number of miles of distribution system line surveyed. 10

### C. System Audit / Leak Detection Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	30000	30000
2. Actual Expenditures	31972	

### D. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No
- a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

### E. Comments



## BMP 04: Metering with Commodity Rates for all New Connections and Retrofit of Existing

Reporting Unit: **City of Fairfield, Dept of Public Works** BMP Form Status: **100% Complete** Year: **2001**

### A. Implementation

1. Does your agency require meters for all new connections and bill by volume-of-use? yes
2. Does your agency have a program for retrofitting existing unmetered connections and bill by volume-of-use? no
  - a. If YES, when was the plan to retrofit and bill by volume-of-use existing unmetered connections completed?
  - b. Describe the program:
3. Number of previously unmetered accounts fitted with meters during report year. 0

### B. Feasibility Study

1. Has your agency conducted a feasibility study to assess the merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters? no
  - a. If YES, when was the feasibility study conducted? (mm/dd/yy)
  - b. Describe the feasibility study:
2. Number of CII accounts with mixed-use meters. 102
3. Number of CII accounts with mixed-use meters retrofitted with dedicated irrigation meters during reporting period. 0

### C. Meter Retrofit Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	0	0
2. Actual Expenditures	0	

### D. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No
  - a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."  
The city has long had a volume only rate for irrigation meters. This structure allows for one of three rates - irrigation, interruptible irrigation service, and special irrigation (in anticipation of recycled water service). We have also set up three special service areas within our community to be served raw water from the Solano Irrigation District. These structures have encouraged private owners and public agencies to use more controlled use of their irrigation water within the city. Irrigation only service has increased from just over 1800 AF per year in 1990 to just under 4200 AF in 2000. Many of the accounts are substitution accounts as well, moving from a multi-use category to an irrigation only category. These efforts allow irrigation managers to more easily track and manage the water consumption and cost of their landscaping.

### E. Comments

The City has continued benefits from an irrigation meter project we did in conjunction with the school district prior to this year.



## BMP 05: Large Landscape Conservation Programs and Incentives

Reporting Unit: **City of Fairfield, Dept of Public Works** BMP Form Status: **100% Complete** Year: **2001**

### A. Water Use Budgets

- |  |     |
|--|-----|
| 1. Number of Dedicated Irrigation Meter Accounts:  | 630 |
| 2. Number of Dedicated Irrigation Meter Accounts with Water Budgets:                       | 0   |
| 3. Budgeted Use for Irrigation Meter Accounts with Water Budgets (AF):                     | 0   |
| 4. Actual Use for Irrigation Meter Accounts with Water Budgets (AF):                       | 0   |
| 5. Does your agency provide water use notices to accounts with budgets each billing cycle? | no  |

### B. Landscape Surveys

- |  |     |
|--|-----|
| 1. Has your agency developed a marketing / targeting strategy for landscape surveys? | no  |
| a. If YES, when did your agency begin implementing this strategy?                    |     |
| b. Description of marketing / targeting strategy:                                    |     |
| 2. Number of Surveys Offered.  | 1   |
| 3. Number of Surveys Completed.  | 0   |
| 4. Indicate which of the following Landscape Elements are part of your survey:       |     |
| a. Irrigation System Check   | no  |
| b. Distribution Uniformity Analysis  | no  |
| c. Review / Develop Irrigation Schedules   | yes |
| d. Measure Landscape Area  | no  |
| e. Measure Total Irrigable Area  | no  |
| f. Provide Customer Report / Information   | yes |
| 5. Do you track survey offers and results?   | yes |
| 6. Does your agency provide follow-up surveys for previously completed surveys?      | no  |
| a. If YES, describe below:   |     |

### C. Other BMP 5 Actions

- |   |    |
|---|----|
| 1. An agency can provide mixed-use accounts with ETo-based landscape budgets in lieu of a large landscape survey program. | no |
| Does your agency provide mixed-use accounts with landscape budgets?   |    |
| 2. Number of CII mixed-use accounts with landscape budgets.   | 0  |
| 3. Do you offer landscape irrigation training?  | no |
| 4. Does your agency offer financial incentives to improve landscape water use efficiency?                                 | no |

Type of Financial Incentive:	Budget (Dollars/ Year)	Number Total Amount Awarded to Customers	Awarded
a. Rebates			
b. Loans			
c. Grants			

- |  |     |
|--|-----|
| 5. Do you provide landscape water use efficiency information to new customers and customers changing services? | yes |
|--|-----|

a. If YES, describe below:

All commercial, institutional and industrial insulations must go through the City's plan check process and comply with the water efficient landscaping ordinance. This ordinance requires a new use to establish a water budget based on the landscape design and



applicable evapotranspiration (ET) for the City of Fairfield. This ordinance follows the guide lines established by the state of California prior to adoption in 1992.

6. Do you have irrigated landscaping at your facilities? yes
  - a. If yes, is it water-efficient? yes
  - b. If yes, does it have dedicated irrigation metering? yes
7. Do you provide customer notices at the start of the irrigation season? no
8. Do you provide customer notices at the end of the irrigation season? no

#### **D. Landscape Conservation Program Expenditures**

	<b>This Year</b>	<b>Next Year</b>
1. Budgeted Expenditures	3994	4615
2. Actual Expenditures	31974	

#### **E. "At Least As Effective As"**

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No
  - a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

#### **F. Comments**

### **BMP 06: High-Efficiency Washing Machine Rebate Programs**

Reporting Unit: **City of Fairfield, Dept of Public Works**      BMP Form Status: **100% Complete**      Year: **2001**

#### **A. Implementation**

1. Do any energy service providers or waste water utilities in your service area offer rebates for high-efficiency washers? yes
  - a. If YES, describe the offerings and incentives as well as who the energy/waste water utility provider is.  
PG&E offered a rebate for approximately \$50 that was intermittently offered over the course of the year.
2. Does your agency offer rebates for high-efficiency washers? yes
3. What is the level of the rebate? 25
4. Number of rebates awarded. 1

#### **B. Rebate Program Expenditures**

	<b>This Year</b>	<b>Next Year</b>
1. Budgeted Expenditures	150	150
2. Actual Expenditures	436	

#### **C. "At Least As Effective As"**

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no
  - a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

#### **D. Comments**

After reviewing the cost effectiveness of a washing machine rebate program, the City of Fairfield found that a \$50 rebate program would not be cost effective. We implemented a reduced value program to those who request it as part of our community relations efforts. \$25 is provided to those who provide certification of receipt of a PGE refund.



## **BMP 07: Public Information Programs**

Reporting Unit: **City of Fairfield, Dept of Public Works**      BMP Form Status: **100% Complete**      Year: **2001**

### **A. Implementation**

1. Does your agency maintain an active public information program to promote and educate customers about water conservation? yes

a. If YES, describe the program and how it's organized.

We have a very active program that reaches out to the community in many ways. We have bill inserts, brochures, public service announcements, participation in special events, articles in the Fairfield Observer, a newsletter sent out to all City residents and our Water Quality Report is also sent to every water user in our City.

2. Indicate which and how many of the following activities are included in your public information program.

<b>Public Information Program Activity</b>	<b>Yes/No</b>	<b>Number of Events</b>
a. Paid Advertising	no	
b. Public Service Announcement	yes	3
c. Bill Inserts / Newsletters / Brochures	no	
d. Bill showing water usage in comparison to previous year's usage	yes	
e. Demonstration Gardens	yes	2
f. Special Events, Media Events	no	
g. Speaker's Bureau	no	0
h. Program to coordinate with other government agencies, industry and public interest groups and media	yes	

### **B. Conservation Information Program Expenditures**

	<b>This Year</b>	<b>Next Year</b>
1. Budgeted Expenditures	1394	1394
2. Actual Expenditures	5505	

### **C. "At Least As Effective As"**

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

### **D. Comments**

All cities in Solano County, along with the California Farm Bureau and USBR benefited from the Marine World display. The project opened in 2000 and was seen by an estimated 1,000,000 visitors during 2001.



**BMP 08: School Education Programs**

Reporting Unit: **City of Fairfield, Dept of Public Works**      BMP Form Status: **100% Complete**      Year: **2001**

**A. Implementation**

1. Has your agency implemented a school information program to promote water conservation? yes

2. Please provide information on your school programs (by grade level):

Grade	Are grade-appropriate materials distributed?	No. of class presentations	No. of students reached	No. of teachers' workshops
Grades K-3rd	yes	20	283	1
Grades 4th-6th	yes	5	169	1
Grades 7th-8th	yes	4	175	1
High School	yes	5	200	2

3. Did your Agency's materials meet state education framework requirements? yes

4. When did your Agency begin implementing this program? 1/1/1992

**B. School Education Program Expenditures**

	This Year	Next Year
1. Budgeted Expenditures	1394	1394
2. Actual Expenditures	6181	

**C. "At Least As Effective As"**

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

**D. Comments****BMP 09: Conservation Programs for CII Accounts**

Reporting Unit: **City of Fairfield, Dept of Public Works**      BMP Form Status: **100% Complete**      Year: **2001**

**A. Implementation**

1. Has your agency identified and ranked COMMERCIAL customers according to use? yes

2. Has your agency identified and ranked INDUSTRIAL customers according to use? yes

3. Has your agency identified and ranked INSTITUTIONAL customers according to use? yes

**Option A: CII Water Use Survey and Customer Incentives Program**

4. Is your agency operating a CII water use survey and customer incentives program for the purpose of complying with BMP 9 under this option? yes



<b>CII Surveys</b>	<b>Commercial Accounts</b>	<b>Industrial Accounts</b>	<b>Institutional Accounts</b>
a. Number of New Surveys Offered	0	0	0
b. Number of New Surveys Completed	0	0	0
c. Number of Site Follow-ups of Previous Surveys (within 1 yr)	0	0	0
d. Number of Phone Follow-ups of Previous Surveys (within 1 yr)	0	0	0
<b>CII Survey Components</b>	<b>Commercial Accounts</b>	<b>Industrial Accounts</b>	<b>Institutional Accounts</b>
e. Site Visit	yes	yes	yes
f. Evaluation of all water-using apparatus and processes	yes	yes	yes
g. Customer report identifying recommended efficiency measures, paybacks and agency incentives	no	no	no
<b>Agency CII Customer Incentives</b>	<b>Budget (\$/Year)</b>	<b>No. Awarded to Customers</b>	<b>Total \$ Amount Awarded</b>
h. Rebates	0	0	0
i. Loans	0	0	0
j. Grants	0	0	0
k. Others	0	0	0

---

### Option B: CII Conservation Program Targets

---

5. Does your agency track CII program interventions and water savings for the purpose of complying with BMP 9 under this option?	no
6. Does your agency document and maintain records on how savings were realized and the method of calculation for estimated savings?	no
7. Estimated annual savings (AF/yr) from site-verified actions taken by agency since 1991.	0
8. Estimated annual savings (AF/yr) from non-site-verified actions taken by agency since 1991.	921

### B. Conservation Program Expenditures for CII Accounts

	<b>This Year</b>	<b>Next Year</b>
1. Budgeted Expenditures	4190	4903
2. Actual Expenditures	3190	

### C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP?	No
a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."	

### D. Comments



## BMP 09a: CII ULFT Water Savings

Reporting Unit:

**City of Fairfield, Dept of  
Public Works**

BMP Form Status:  
**100% Complete**

Year:  
**2001**

1. Did your agency implement a CII ULFT replacement program in the reporting year?  
If No, please explain why on Line B. 10.

No

### A. Targeting and Marketing

1. What basis does your agency use to target customers for participation in this program? Check all that apply.

a. Describe which method you found to be the most effective overall, and which was the most effective per dollar expended.

2. How does your agency advertise this program? Check all that apply.

a. Describe which method you found to be the most effective overall, and which was the most effective per dollar expended.

### B. Implementation

1. Does your agency keep and maintain customer participant information? (Read the Help information for a complete list of all the information for this BMP.)
2. Would your agency be willing to share this information if the CUWCC did a study to evaluate the program on behalf of your agency?
3. What is the total number of customer accounts participating in the program during the last year ?

CII Subsector	Number of Toilets Replaced					Type Not Specified
4.	Standard Gravity Tank	Air Assisted	Valve Floor Mount	Valve Wall Mount		
a. Offices						

0



b. Retail / Wholesale	0
c. Hotels	0
d. Health	0
e. Industrial	0
f. Schools: K to 12	0
g. Eating	0
h. Govern- ment	0
i. Churches	0
j. Other	0

5. Program  
design.

6. Does your agency use outside services to implement  
this program?

a. If yes, check all that apply.

7. Participant tracking and  
follow-up.

8. Based on your program experience, please rank on a scale of 1 to 5, with  
1 being the least frequent cause and 5 being the most frequent cause, the  
following reasons why customers refused to participate in the program.

a. Disruption to business

b. Inadequate payback

c. Inadequate ULFT performance

d. Lack of funding

e. American's with Disabilities Act

f. Permitting

g. Other. Please describe in B. 9.



9. Please describe general program acceptance/resistance by customers, obstacles to implementation, and other issues affecting program implementation or effectiveness.

10. Please provide a general assessment of the program for this reporting year. Did your program achieve its objectives? Were your targeting and marketing approaches effective? Were program costs in line with expectations and budgeting?

We have done a cost effective analysis of UFLT's and have found that they are not cost effective.

## **C. Conservation Program Expenditures for CII ULFT**

### 1. CII ULFT Program: Annual Budget & Expenditure Data

	<b>Budgeted</b>	<b>Actual Expenditure</b>
a. Labor		
b. Materials		
c. Marketing & Advertising		
d. Administration & Overhead		
e. Outside Services		
f. Total	0	0

### 2. CII ULFT Program: Annual Cost Sharing

a. Wholesale agency contribution	
b. State agency contribution	
c. Federal agency contribution	
d. Other contribution	
e. Total	0

## **D. Comments**



## BMP 11: Conservation Pricing

Reporting Unit:

City of Fairfield, Dept of Public Works

BMP Form Status:

100% Complete

Year:

2001

### A. Implementation

#### Rate Structure Data Volumetric Rates for Water Service by Customer Class

##### 1. Residential

a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Non-volumetric Flat Rate
c. Total Revenue from Volumetric Rates	\$7083628.29
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$11532663.23

##### 2. Commercial

a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Uniform
c. Total Revenue from Volumetric Rates	\$1936251.74
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$602110.65

##### 3. Industrial

a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Uniform
c. Total Revenue from Volumetric Rates	\$1577921.08
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$416812.9

##### 4. Institutional / Government

a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Uniform
c. Total Revenue from Volumetric Rates	\$708193.12
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$314267.11

##### 5. Irrigation

a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from Volumetric Rates	\$1255529.66
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$27862.22

##### 6. Other

a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Uniform
c. Total Revenue from Volumetric Rates	\$167208.54
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$165686.42

### B. Conservation Pricing Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	0	0
2. Actual Expenditures	0	

### C. "At Least As Effective As"



1. Is your AGENCY implementing an "at least as effective as" variant of this BMP?

No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

#### D. Comments

Non-residential rates for sewer change into a calculated formula once volume exceeds 5000 gallons per day. These rates are typically substantially higher than the uniform rate.

### BMP 12: Conservation Coordinator

Reporting Unit:	BMP Form Status:	Year:
City of Fairfield, Dept of Public Works	100% Complete	2001

#### A. Implementation

- |   |  |
|---|--|
| 1. Does your Agency have a conservation coordinator?  | yes  |
| 2. Is this a full-time position?  | yes  |
| 3. If no, is the coordinator supplied by another agency with which you cooperate in a regional conservation program ? |  |
| 4. Partner agency's name:   | none   |
| 5. If your agency supplies the conservation coordinator:  |  |
| a. What percent is this conservation coordinator's position?  | 60%  |
| b. Coordinator's Name   | Andrew Walker  |
| c. Coordinator's Title  | Senior Management Analyst                                      |
| d. Coordinator's Experience and Number of Years   | Masters Degree in Public Administration, 7 years of experience |
| e. Date Coordinator's position was created (mm/dd/yyyy)   | 1/1/1991   |
| 6. Number of conservation staff, including Conservation Coordinator.  | 4  |

#### B. Conservation Staff Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	5000	5000
2. Actual Expenditures	6962	

#### C. "At Least As Effective As"

- |  |    |
|--|----|
| 1. Is your AGENCY implementing an "at least as effective as" variant of this BMP?  | no |
| a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as." |    |

#### D. Comments



## **BMP 13: Water Waste Prohibition**

Reporting Unit: **City of Fairfield, Dept of Public Works**      BMP Form Status: **100% Complete**      Year: **2001**

### **A. Requirements for Documenting BMP Implementation**

1. Is a water waste prohibition ordinance in effect in your service area? yes
  - a. If YES, describe the ordinance:  
Article XV. Water Misuse Prevention Program Declaration: ..."the general welfare requires that the maximum beneficial use possible and the misuse or unreasonable use or unreasonable method of use of water be prevented."
2. Is a copy of the most current ordinance(s) on file with CUWCC? yes
  - a. List local jurisdictions in your service area in the first text box and water waste ordinance citations in each jurisdiction in the second text box:  
--City of Fairfield      City Code Section 22 Article XV

### **B. Implementation**

1. Indicate which of the water uses listed below are prohibited by your agency or service area.
  - a. Gutter flooding yes
  - b. Single-pass cooling systems for new connections yes
  - c. Non-recirculating systems in all new conveyor or car wash systems no
  - d. Non-recirculating systems in all new commercial laundry systems no
  - e. Non-recirculating systems in all new decorative fountains no
  - f. Other, please name yes  
daytime irrigation restrictions, requirement to fix controlled leaks
2. Describe measures that prohibit water uses listed above:  
A. Failure by any customer to repair a controllable leak shall be prohibited. B. Landscape irrigation shall occur only before 12:00 noon or after 6:00 p.m. C. All new installation of cooling systems using potable water as a coolant shall be recycling systems only.

#### **Water Softeners:**

3. Indicate which of the following measures your agency has supported in developing state law:
  - a. Allow the sale of more efficient, demand-initiated regenerating DIR models. no
  - b. Develop minimum appliance efficiency standards that:
    - i.) Increase the regeneration efficiency standard to at least 3,350 grains of hardness removed per pound of common salt used. no
    - ii.) Implement an identified maximum number of gallons discharged per gallon of soft water produced. no
  - c. Allow local agencies, including municipalities and special districts, to set more stringent standards and/or to ban on-site regeneration of water softeners if it is demonstrated and found by the agency governing board that there is an adverse effect on the reclaimed water or groundwater supply. no
4. Does your agency include water softener checks in home water audit programs? no
5. Does your agency include information about DIR and exchange-type water softeners in educational efforts to encourage replacement of less efficient timer models? no

### **C. Water Waste Prohibition Program Expenditures**

	<b>This Year</b>	<b>Next Year</b>
1. Budgeted Expenditures	500	500



2. Actual Expenditures

0

#### **D. "At Least As Effective As"**

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

#### **E. Comments**

Every year a list is generated of the top 10% water users in our area. A letter is sent notifying them that they are in this group. The letter is not a citation, but it does notify the customer that they are using a large amount of water, and an in home water audit and water saving devices are offered.

### **BMP 14: Residential ULFT Replacement Programs**

Reporting Unit:

BMP Form Status:

Year:

**City of Fairfield, Dept of Public Works**

**100% Complete**

**2001**

#### **A. Implementation**

	<b>Single-Family Accounts</b>	<b>Multi-Family Units</b>
1. Does your Agency have program(s) for replacing high-water-using toilets with ultra-low flush toilets?	no	no

**Number of Toilets Replaced by Agency Program During Report Year**

**Replacement Method**

**SF Accounts MF Units**

2. Rebate

3. Direct Install

4. CBO Distribution

5. Other

#### **Total**

6. Describe your agency's ULFT program for single-family residences.

7. Describe your agency's ULFT program for multi-family residences.

8. Is a toilet retrofit on resale ordinance in effect for your service area? no

9. List local jurisdictions in your service area in the left box and ordinance citations in each jurisdiction in the right box:

#### **B. Residential ULFT Program Expenditures**

	<b>This Year</b>	<b>Next Year</b>
1. Budgeted Expenditures	0	0
2. Actual Expenditures	395	

#### **C. "At Least As Effective As"**

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

#### **D. Comments**

The City of Fairfield prepared an exemption for this BMP as it is not cost effective.



## CUWCC BMP Coverage Reports

### Summary Table

CUWCC BMP	CUWCC Status (9/2006) Taken from Online Database		City of Fairfield Comments
BMP 01: Water Survey Programs for Single-Family and Multi-Family Residential Customers	Water supplier is on track to meet the coverage requirements for this BMP.	...	Continuing our water survey program.
BMP 02: Residential Plumbing Retrofit	Water supplier is <b>not</b> currently on track to meet the coverage requirements for this BMP.	...	This BMP is short in the MF sector only. Per BMP 1, City has provided showerheads to 1,094 of 7,723 MF units. We need to complete our MF penetration study and verify the accurate count of Plumbing Retrofit efforts to MF units.
BMP 03: System Water Audits, Leak Detection and Repair	Water supplier has met the coverage requirements for this BMP.	...	We will continue to perform an annual system water audit.
BMP 04: Metering with Commodity Rates for all New Connections and Retrofit of Existing	Water supplier has met the coverage requirements for this BMP.	...	City will continue to meter all connections to City water system.
BMP 05: Large Landscape Conservation Programs and Incentives	Water supplier is <b>not</b> currently on track to meet the coverage requirements for this BMP.	...	City is working to comply with new conditions of BMP.
BMP 06: High-Efficiency Washing Machine Rebate Programs	BMP 06 was revised March 10, 2004; effective July 1, 2004. All previous BMP 06 implementation efforts will count towards meeting agency's Coverage Goal. Please see the current BMP 06 Coverage Requirement report for your agency's progress on this BMP.	...	City of Fairfield has prepared an exemption for this BMP in all prior years, but has offered a \$25 rebate despite the exemption. This has been given out to a small number of HEW purchasers. Our exemption status stands with USBR at this time, but the Solano County Water Agency is preparing to offer a countywide HEW rebate program that Fairfield will participate in.
BMP 07: Public Information Programs	Water supplier has met the coverage requirements for this BMP.	...	City will continue to provide public information outreach on a local and regional basis.
BMP 08: School Education Programs	Water supplier has met the coverage requirements for this BMP.	...	City will continue to provide school education programs.
BMP 09: Conservation Programs for CII Accounts	Water supplier is <b>not</b> currently on track to meet the coverage requirements for this BMP.	...	Solano County Water Agency has just completed a USBR-funded CII program design study and will be implementing its recommendations. Budget is in place to take actions this year and forward.



BMP 11: Conservation Pricing	Water supplier is <b>not</b> currently on track to meet the coverage requirements for this BMP.	...	City water rates <b>do conform</b> to the standards required. Not all FSSD sewer rates are based on flow.
BMP 12: Conservation Coordinator	Water supplier has met the coverage requirements for this BMP.	...	City will continue to have a Conservation Coordinator.
BMP 13: Water Waste Prohibition	Water supplier is <b>not</b> currently on track to meet the coverage requirements for this BMP.	...	City has had a water misuse ordinance in place since 1994. City staff will move forward with an expanded list of single-pass uses.
BMP 14: Residential ULFT Replacement Programs	Water supplier is <b>not</b> currently on track to meet the coverage requirements for this BMP.	...	City has prepared an exemption for this BMP and has never implemented a program based on a lack of cost-effectiveness.



## Individual Coverage Reports

### BMP 01 Coverage: Water Survey Programs for Single-Family and Multi-Family Residential Customers

Reporting Unit:  
City of Fairfield, Dept of Public Works



#### MOU Exhibit 1 Coverage Requirement

No exemption request filed

Agency indicated "at least as effective as" implementation during report period?

No

A Reporting Unit (RU) must meet three conditions to satisfy strict compliance for BMP 1.

Condition 1: Adopt survey targeting and marketing strategy on time

Condition 2: Offer surveys to 20% of SF accounts and 20% of MF units during report period

Condition 3: Be on track to survey 15% of SF accounts and 15% of MF units within 10 years of implementation start date.

#### Test for Condition 1

City of Fairfield, Dept of Public Works to Implement Targeting/Marketing Program by:

1999

Single-Family   Multi-Family

Year City of Fairfield, Dept of Public Works Reported Implementing Targeting/Marketing Program:

1998

1996

City of Fairfield, Dept of Public Works Met Targeting/Marketing Coverage Requirement:

YES

YES

#### Test for Condition 2

Survey Program to Start by:      1998      Residential Survey Offers (%)

Reporting Period:      03-04      Survey Offers  $\geq$  20%

Single-Family   Multi-Family

161.01%

YES

NO

#### Test for Condition 3

Completed Residential Surveys

Single Family   Multi-Family

Total Completed Surveys 1999 - 2004:

999

5



Past Credit for Surveys Completed Prior to 1999 (Implementation of Reporting Database):	283	1,089
Total + Credit	1,282	1,094
Residential Accounts in Base Year	20,110	7,723
City of Fairfield, Dept of Public Works Survey Coverage as % of Base Year Residential Accounts	6.37%	14.17%
Coverage Requirement by Year 6 of Implementation per Exhibit 1	6.30%	6.30%
City of Fairfield, Dept of Public Works on Schedule to Meet 10-Year Coverage Requirement	ON TRACK	ON TRACK

### **BMP 01 COVERAGE STATUS SUMMARY:**

**Water supplier is on track to meet the coverage requirements for this BMP.**

## **BMP 02 Coverage: Residential Plumbing Retrofit**

Reporting Unit:  
**City of Fairfield, Dept of Public Works**



### **MOU Exhibit 1 Coverage Requirement**

No exemption request filed

Agency indicated "at least as effective as" implementation during  
report period?

No

An agency must meet one of three conditions to satisfy strict compliance for BMP 2.

Condition 1: The agency has demonstrated that 75% of SF accounts and 75% of MF units constructed prior to 1992 are fitted with low-flow showerheads.

Condition 2: An enforceable ordinance requiring the replacement of high-flow showerheads and other water use fixtures with their low-flow counterparts is in place for the agency's service area.

Condition 3: The agency has distributed or directly installed low-flow showerheads and other low-flow plumbing devices to not less than 10% of single-family accounts and 10% of multi-family units constructed prior to 1992 during the reporting period.

### **Test for Condition 1**

Report Year	Report Period	<u>Single-Family</u>		<u>Multi-Family</u>	
		<u>Reported Saturation</u>	<u>Saturation ≥ 75%?</u>	<u>Reported Saturation</u>	<u>Saturation ≥ 75%?</u>
1999	99-00	75.00%	NO	75.00%	NO
2000	99-00	75.00%	NO	75.00%	NO
2001	01-02	82.00%	YES	75.00%	NO



2002	01-02	82.00%	YES	75.00%	NO
2003	03-04	82.00%	YES	75.00%	NO
2004	03-04	82.00%	YES	75.00%	NO
2005	05-06	82.00%	YES	75.00%	NO
2006	05-06				

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### Test for Condition 2

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<u>Report Year</u>	<u>Report Period</u>	<u>City of Fairfield, Dept of Public Works has ordinance requiring showerhead retrofit?</u>
1999	99-00	NO
2000	99-00	NO
2001	01-02	NO
2002	01-02	NO
2003	03-04	NO
2004	03-04	NO
2005	05-06	NO
2006	05-06	

---

### Test for Condition 3

---

Reporting Period: 03-04

<u>1992 SF Accounts</u>	<u>Num. Showerheads Distributed to SF Accounts</u>	<u>Single-Family Coverage Ratio</u>	<u>SF Coverage Ratio &gt; 10%</u>
18,219	742	4.1%	NO
<u>1992 MF Accounts</u>	<u>Num. Showerheads Distributed to MF Accounts</u>	<u>Multi-Family Coverage Ratio</u>	<u>MF Coverage Ratio &gt; 10%</u>
7,478	98	1.3%	NO

### **BMP 2 COVERAGE STATUS SUMMARY:**

**Water supplier is not currently on track to meet the coverage requirements for this BMP.**

## BMP 03 Coverage: System Water Audits, Leak Detection



## and Repair

Reporting Unit:

City of Fairfield, Dept of Public Works



### MOU Exhibit 1 Coverage Requirement

No exemption request filed

Agency indicated "at least as effective as" implementation during report period?

No

An agency must meet one of two conditions to be in compliance with BMP 3:

Condition 1: Perform a prescreening audit. If the result is equal to or greater than 0.9 nothing more needs be done.

Condition 2: Perform a prescreening audit. If the result is less than 0.9, perform a full audit in accordance with AWWA's Manual of Water Supply Practices, Water Audits, and Leak Detection.

### Test for Conditions 1 and 2

<u>Report Year</u>	<u>Report Period</u>	<u>Pre-Screen Completed</u>	<u>Pre-Screen Result</u>	<u>Full Audit Indicated</u>	<u>Full Audit Completed</u>
1999	99-00	YES	93.7%	NO	YES
2000	99-00	YES	92.6%	NO	YES
2001	01-02	YES	95.5%	NO	NO
2002	01-02	YES	92.9%	NO	YES
2003	03-04	YES	95.6%	NO	YES
2004	03-04	YES	91.5%	NO	YES
2005	05-06	YES	90.7%	NO	YES
2006	05-06				

### BMP 3 COVERAGE STATUS SUMMARY:

Water supplier has met the coverage requirements for this BMP.

## BMP 04 Coverage: Metering with Commodity Rates for



## all New Connections and Retrofit of Existing

Reporting Unit:

City of Fairfield, Dept of Public Works

### MOU Exhibit 1 Coverage Requirement

No exemption request filed

Agency indicated "at least as effective as" implementation during report period?

No

An agency must be on track to retrofit 100% of its unmetered accounts within 10 years to be in compliance with BMP 4.

### Test for Compliance

Total Meter Retrofits Reported through 2004

No. of Unmetered Accounts in Base Year

Meter Retrofit Coverage as % of Base Year Unmetered Accounts

Coverage Requirement by Year 5 of Implementation per Exhibit 1 32.5%

RU on Schedule to meet 10 Year Coverage Requirement YES

### **BMP 4 COVERAGE STATUS SUMMARY:**

**Water supplier has met the coverage requirements for this BMP.**

## BMP 05 Coverage: Large Landscape Conservation Programs and Incentives

Reporting Unit:

City of Fairfield, Dept of Public Works

### MOU Exhibit 1 Coverage Requirement

No exemption request filed

Agency indicated "at least as effective as" implementation during report period?

No

An agency must meet three conditions to comply with BMP 5.

Condition 1: Develop water budgets for 90% of its dedicated landscape meter accounts within four years of the date implementation is to start.

Condition 2: (a) Offer landscape surveys to at least 20% of its CII accounts with mixed use meters each report cycle and be on track to survey at least 15% of its CII accounts with mixed use meters within 10 years of the date implementation is to start OR (b) Implement a dedicated landscape meter retrofit program for CII accounts with mixed use meters or assign landscape budgets to mixed use meters.

Condition 3: Implement and maintain customer incentive program(s) for irrigation equipment retrofits.

### Test for Condition 1



<u>Year</u>	<u>Report Period</u>	<u>BMP 5 Implementation Year</u>	<u>No. of Irrigation Meter Accounts</u>	<u>No. of Irrigation Accounts with Budgets</u>	<u>Budget Coverage Ratio</u>	<u>90% Coverage Met by Year 4</u>
1999	99-00		560			NA
2000	99-00	1	577			NA
2001	01-02	2	630			NA
2002	01-02	3	660			NA
2003	03-04	4	722	86	11.9%	NO
2004	03-04	5	724	86	11.9%	NO
2005	05-06	6	747	86	11.5%	NO
2006	05-06	7				NO

---

#### Test for Condition 2a (survey offers)

---

Select Reporting Period: 03-04

Large Landscape Survey Offers as % of Mixed Use Meter CII Accounts

Survey Offers Equal or Exceed 20% Coverage Requirement NO

---

#### Test for Condition 2a (surveys completed)

---

Total Completed Landscape Surveys Reported through 4

Credit for Surveys Completed Prior to Implementation of Reporting Database

Total + Credit 4

CII Accounts in Base Year 956

RU Survey Coverage as a % of Base Year CII Accounts 0.4%

Coverage Requirement by Year of Implementation per Exhibit 1 4.9%

RU on Schedule to Meet 10 Year Coverage Requirement NO

---

#### Test for Condition 2b (mixed use budget or meter retrofit program)

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<u>Report Year</u>	<u>Report Period</u>	<u>BMP 5 Implementation Year</u>	<u>Agency has mix-use budget program</u>	<u>No. of mixed-use budgets</u>
1999	99-00		NO	



2000	99-00	1	NO
2001	01-02	2	NO
2002	01-02	3	NO
2003	03-04	4	NO
2004	03-04	5	NO
2005	05-06	6	NO
2006	05-06	7	

<u>Report Year</u>	<u>Report Period</u>	<u>BMP 4 Implementation Year</u>	<u>No. of mixed use CII accounts</u>	<u>No. of mixed use CII accounts fitted with irrig. meters</u>
1999	99-00		75	
2000	99-00	1	102	
2001	01-02	2	102	
2002	01-02	3	102	
2003	03-04	4	102	
2004	03-04	5	105	
2005	05-06	6	105	
2006	05-06	7		

---

### Test for Condition 3

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<u>Report Year</u>	<u>Report Period</u>	<u>BMP 5 Implementation Year</u>	<u>RU offers financial incentives?</u>	<u>No. of Loans</u>	<u>Total Amt. Loans</u>
1999	99-00		NO		
2000	99-00	1	NO		
2001	01-02	2	NO		
2002	01-02	3	NO		
2003	03-04	4	NO		
2004	03-04	5	NO		
2005	05-06	6	NO		
2006	05-06	7			

<u>Report Year</u>	<u>Report Period</u>	<u>No. of Grants</u>	<u>Total Amt. Grants</u>	<u>No. of rebates</u>	<u>Total Amt. Rebates</u>
1999	99-00				
2000	99-00				
2001	01-02				
2002	01-02				
2003	03-04				



2004	03-04
2005	05-06
2006	05-06

---

**BMP 5 COVERAGE STATUS SUMMARY:**

**Water supplier is not currently on track to meet the coverage requirements for this BMP.**

## **BMP 06 Coverage: High-Efficiency Washing Machine Rebate Programs**

Reporting Unit:  
City of Fairfield, Dept of Public Works

### **Pre-2004 MOU Exhibit 1 Coverage Requirement**

An agency must meet one condition to comply with BMP 6.

Condition 1: Offer a cost-effective financial incentive for high-efficiency washers if one or more energy service providers in service area offer financial incentives for high-efficiency washers.

### **Revised MOU Exhibit 1 Coverage Requirement**

An agency must meet two conditions to comply with BMP 6.

Condition 1: Offer a cost-effective financial incentive to customers for the purchase of high-efficiency washers with water factors of 9.5 or less.

Condition 2: Meet Coverage Goal ( $CG = \text{Total Dwelling Units} \times 0.048$ ) by January 1, 2007.

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**BMP 06 was revised March 10, 2004; effective July 1, 2004. All previous BMP 06 implementation efforts will count towards meeting agency's Coverage Goal. Please see the current BMP 06 Coverage Requirement report for your agency's progress on this BMP.**

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## **BMP 07 Coverage: Public Information Programs**

Reporting Unit:  
City of Fairfield, Dept of Public Works



	<b>MOU Exhibit 1 Coverage Requirement</b>	
No exemption request filed		
Agency indicated "at least as effective as" implementation during report period?		No


An agency must meet one condition to comply with BMP 7.

Condition 1: Implement and maintain a public information program consistent with BMP 7's definition.

### Test for Condition 1

<u>Year</u>	<u>Report Period</u>	<u>BMP 7 Implementation Year</u>	<u>RU Has Public Information Program?</u>
1999	99-00	1	YES
2000	99-00	2	YES
2001	01-02	3	YES
2002	01-02	4	YES
2003	03-04	5	YES
2004	03-04	6	YES
2005	05-06	7	YES
2006	05-06	8	YES

**BMP 7 COVERAGE STATUS SUMMARY:**  
**Water supplier has met the coverage requirements for this BMP.**

<b>BMP 08 Coverage: School Education Programs</b>		
Reporting Unit: City of Fairfield, Dept of Public Works		
	<b>MOU Exhibit 1 Coverage Requirement</b>	
No exemption request filed		
Agency indicated "at least as effective as" implementation during report period?		No

An agency must meet one condition to comply with BMP 8.

Condition 1: Implement and maintain a school education program consistent with BMP 8's definition.

### Test for Condition 1

<u>Year</u>	<u>Report Period</u>	<u>BMP 8 Implementation Year</u>	<u>RU Has School Education Program?</u>
1999	99-00	1	YES
2000	99-00	2	YES



2001	01-02	3	YES
2002	01-02	4	YES
2003	03-04	5	YES
2004	03-04	6	YES
2005	05-06	7	YES
2006	05-06	8	NO

**BMP 8 COVERAGE STATUS SUMMARY:**

**Water supplier has met the coverage requirements for this BMP.**

## BMP 09 Coverage: Conservation Programs for CII Accounts

Reporting Unit:  
City of Fairfield, Dept of Public Works

### MOU Exhibit 1 Coverage Requirement

No exemption request filed

Agency indicated "at least as effective as" implementation during report period?

No

An agency must meet three conditions to comply with BMP 9.

Condition 1: Agency has identified and ranked by use commercial, industrial, and institutional accounts.

Condition 2(a): Agency is on track to survey 10% of commercial accounts, 10% of industrial accounts, and 10% of institutional accounts within 10 years of date implementation to commence.

OR

Condition 2(b): Agency is on track to reduce CII water use by an amount equal to 10% of baseline use within 10 years of date implementation to commence.

OR

Condition 2(c): Agency is on track to meet the combined target as described in Exhibit 1 BMP 9 documentation.

### Test for Condition 1

<u>Year</u>	<u>Report Period</u>	<u>BMP 9 Implementation Year</u>	<u>Ranked Com. Use</u>	<u>Ranked Ind. Use</u>	<u>Ranked Inst. Use</u>
1999	99-00		YES	YES	YES
2000	99-00	1	YES	YES	YES
2001	01-02	2	YES	YES	YES
2002	01-02	3	YES	YES	YES
2003	03-04	4	YES	YES	YES
2004	03-04	5	YES	YES	YES
2005	05-06	6			
2006	05-06	7			



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**Test for Condition 2a**

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	Commercial	Industrial	Institutional
Total Completed Surveys Reported through 2004	4	2	0
Credit for Surveys Completed Prior to Implementation of Reporting Databases	1	1	
Total + Credit	5	3	
CII Accounts in Base Year	796	31	129
RU Survey Coverage as % of Base Year CII Accounts	0.6%	9.7%	
Coverage Requirement by Year 5 of Implementation per Exhibit 1	3.3%	3.3%	3.3%
RU on Schedule to Meet 10 Year Coverage Requirement	NO	YES	NO

---

**Test for Condition 2b**

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<u>Year</u>	<u>Report Period</u>	<u>BMP 9 Implementation Year</u>	<u>Performance Target Savings (AF/yr)</u>	<u>Performance Target Savings Coverage</u>	<u>Performance Target Savings Coverage Requirement</u>	<u>Coverage Requirement Met</u>
1999	99-00		226	5.1%		YES
2000	99-00	1	229	5.2%	0.5%	YES
2001	01-02	2	230	5.2%	1.0%	YES
2002	01-02	3	233	5.3%	1.7%	YES
2003	03-04	4			2.4%	NO
2004	03-04	5			3.3%	NO
2005	05-06	6			4.2%	NO
2006	05-06	7			5.3%	NO

---

**Test for Condition 2c**

---

Total BMP 9 Surveys + Credit	8
BMP 9 Survey Coverage	0.8%
BMP 9 Performance Target Coverage	
BMP 9 Survey + Performance Target Coverage	0.8%
Combined Coverage Equals or Exceeds Coverage Requirement?	NO



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**BMP 9 COVERAGE STATUS SUMMARY:**

**Water supplier is not currently on track to meet the coverage requirements for this BMP.**

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**BMP 11 Coverage: Conservation Pricing**

Reporting Unit:

**City of Fairfield, Dept of Public Works****MOU Exhibit 1 Coverage Requirement**

No exemption request filed

Agency indicated "at least as effective as" implementation during report period?

No

An agency must meet one condition to comply with BMP 11.

Agency shall maintain rate structure consistent with BMP 11's definition of conservation pricing. Implementation methods shall be at least as effective as eliminating non-conserving pricing and adopting conserving pricing. For signatories supplying both water and sewer service, this BMP applies to pricing of both water and sewer service. Signatories that supply water but not sewer service shall make good faith efforts to work with sewer agencies so that those sewer agencies adopt conservation pricing for sewer service.

a) Non-conserving pricing provides no incentives to customers to reduce use. Such pricing is characterized by one or more of the following components: rates in which the unit price decreases as the quantity used increases (declining block rates); rates that involve charging customers a fixed amount per billing cycle regardless of the quantity used; pricing in which the typical bill is determined by high fixed charges and low commodity charges.

b) Conservation pricing provides incentives to customers to reduce average or peak use, or both. Such pricing includes: rates designed to recover the cost of providing service; and billing for water and sewer service based on metered water use. Conservation pricing is also characterized by one or more of the following components: rates in which the unit rate is constant regardless of the quantity used (uniform rates) or increases as the quantity used increases (increasing block rates); seasonal rates or excess-use surcharges to reduce peak demands during summer months; rates based upon the longrun marginal cost or the cost of adding the next unit of capacity to the system.

---

**Test for Condition 1**


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<u>Year</u>	<u>Report Period</u>	<u>RU Employed Conserving WATER Rate Structure</u>	<u>RU Employed Conserving SEWER Rate Structure</u>	<u>RU Meets BMP 11 Coverage Requirement</u>
1999	99-00	YES	NO	NO
2000	99-00	YES	NO	NO
2001	01-02	YES	NO	NO
2002	01-02	YES	NO	NO
2003	03-04	YES	NO	NO
2004	03-04	YES	NO	NO
2005	05-06			
2006	05-06			

---



**BMP 11 COVERAGE STATUS SUMMARY:**  
**Water supplier is not currently on track to meet the coverage requirements for this BMP.**

<b>BMP 12 Coverage: Conservation Coordinator</b>	
Reporting Unit: <b>City of Fairfield, Dept of Public Works</b>	
	<b>MOU Exhibit 1 Coverage Requirement</b>
No exemption request filed	
Agency indicated "at least as effective as" implementation during report period?	No


Warning: The BMP 12 form is not 100% complete for one or more report years.  
 This may produce inaccurate results for this report.

Agency shall staff and maintain the position of conservation coordinator and provide support staff as necessary.

#### Test for Compliance

Report Year	Report Period	Conservation Coordinator Position Staffed?	Total Staff on Team (incl. CC)
1999	99-00	YES	2
2000	99-00	YES	3
2001	01-02	YES	4
2002	01-02	YES	8
2003	03-04	YES	6
2004	03-04	YES	5
2005	05-06	YES	5
2006	05-06		

**BMP 12 COVERAGE STATUS SUMMARY:**  
**Coverage status cannot be calculated. Water supplier data is missing that is required to calculate coverage status for this BMP.**

<b>BMP 13 Coverage: Water Waste Prohibition</b>	
Reporting Unit: <b>City of Fairfield, Dept of Public Works</b>	
	<b>MOU Exhibit 1 Coverage Requirement</b>
No exemption request filed	



Agency indicated "at least as effective as" implementation during report period?

No

An agency must meet one condition to comply with BMP 13.

Implementation methods shall be enacting and enforcing measures prohibiting gutter flooding, single pass cooling systems in new connections, non-recirculating systems in all new conveyer car wash and commercial laundry systems, and non-recycling decorative water fountains.

### Test for Condition 1

#### Agency or service area prohibits:

<u>Year</u>	<u>Gutter Flooding</u>	<u>Single- Pass Cooling Systems</u>	<u>Single- Pass Car Wash</u>	<u>Single- Pass Laundry</u>	<u>Single- Pass Fountains</u>	<u>Other</u>	<u>RU has ordinance that meets coverage requirement</u>
1999	YES	YES	NO	NO	NO	YES	NO
2000	YES	YES	NO	NO	NO	YES	NO
2001	YES	YES	NO	NO	NO	YES	NO
2002	YES	YES	NO	NO	NO	YES	NO
2003	YES	YES	NO	NO	NO	YES	NO
2004	YES	YES	NO	NO	NO	YES	NO
2005	YES	YES	NO	NO	NO	YES	NO
2006							

#### **BMP 13 COVERAGE STATUS SUMMARY:**

**Water supplier is not currently on track to meet the coverage requirements for this BMP.**

### **BMP 14 Coverage: Residential ULFT Replacement Programs**

Reporting Unit:  
City of Fairfield, Dept of Public Works



#### **MOU Exhibit 1 Coverage Requirement**

A Reporting Unit (RU) must meet one of the following conditions to be in compliance with BMP 14.



Condition 1: Retrofit-on-resale (ROR) ordinance in effect in service area.

Condition 2: Water savings from toilet replacement programs equal to 90% of Exhibit 6 coverage requirement. An agency with an exemption for BMP 14 is not required to meet one of the above conditions. This report treats an agency with missing base year data required to compute the Exhibit 6 coverage requirement as out of compliance with BMP 14.

[Click to view  
Exhibit 6 Cvrgr  
Detail Report](#)

<u>Coverage Year</u>	<u>BMP 14 Data Submitted to CUWCC</u>	<u>Exemption Filed with CUWCC</u>	<u>ROR Ordinance in Effect</u>	<u>Exhibit 6 Coverage Req'mt (AF)</u>	<u>Toilet Replacement Program Water Savings* (AF)</u>
1998	YES			184.81	
1999	YES	NO	NO	496.54	
2000	YES	NO	NO	893.94	
2001	YES	NO	NO	1347.57	
2002	YES	NO	NO	1836.42	
2003	YES	NO	NO	2345.50	
2004	YES	NO	NO	2864.14	
2005	NO	NO	NO	3384.71	
2006	NO	NO	NO	3901.85	
2007	NO	NO	NO	4411.74	

\*NOTE: Program water savings listed are net of the plumbing code. Savings are cumulative (not annual) between 1991 and the given year. Residential ULFT count data from unsubmitted forms are NOT included in the calculation.

---

**BMP 14 COVERAGE STATUS SUMMARY as of 2006:**  
**Water supplier is not currently on track to meet the coverage requirements for this BMP.**



## **2.8 Evaluation of DMMs not Implemented**

The exemption analysis for BMP 6 and BMP 14 is attached as Appendix B. All other BMPs are being implemented or will be implemented.

## **2.9 Planned Water Supply Projects and Programs**

Based on our water supply projections, the City of Fairfield will need to exert continued effort. By combining ongoing conservation efforts, expansion of recycled water, drawing on the state Water Rights Application for watershed of origin and maintaining existing supplies there should be adequate water supplies to meet water demands through the City of Fairfield's General Plan Build-out. Conservation efforts and drought response measures will ensure that water demand does not exceed water supply when full entitlements are unavailable.

## **2.10 Development of Desalinated Water**

With an extended distance to non-Delta water, brackish groundwater would be our only viable option, other than reclaimed water, to use as a future supply.

## **2.11 Current or Projected Supply Includes Wholesale Water**

Solano County has a local wholesaler (Solano County Water Agency) that provides all water supplied to the City of Fairfield. All supply reliability for our water supply takes this relationship into account.



### SECTION 3 – Determination of DMM Implementation

Section 2.7 includes a summary table outlining the implementation efforts to date for the City of Fairfield. This information is taken from the CUWCC Coverage Calculator and includes a discussion on shortcomings and implementation goals on BMPs that are being brought into compliance with expectations. The summary table is repeated here.

#### CUWCC BMP Coverage Reports

##### Summary Table

CUWCC BMP	CUWCC Status (9/2006) Taken from Online Database		City of Fairfield Comments
BMP 01: Water Survey Programs for Single-Family and Multi-Family Residential Customers	Water supplier is on track to meet the coverage requirements for this BMP.	...	Continuing our water survey program.
BMP 02: Residential Plumbing Retrofit	Water supplier is <b>not</b> currently on track to meet the coverage requirements for this BMP.	...	This BMP is short in the MF sector only. Per BMP 1, City has provided showerheads to 1,094 of 7,723 MF units. We need to complete our MF penetration study and verify the accurate count of Plumbing Retrofit efforts to MF units.
BMP 03: System Water Audits, Leak Detection and Repair	Water supplier has met the coverage requirements for this BMP.	...	We will continue to perform an annual system water audit.
BMP 04: Metering with Commodity Rates for all New Connections and Retrofit of Existing	Water supplier has met the coverage requirements for this BMP.	...	City will continue to meter all connections to City water system.
BMP 05: Large Landscape Conservation Programs and Incentives	Water supplier is <b>not</b> currently on track to meet the coverage requirements for this BMP.	...	City is working to comply with new conditions of BMP.
BMP 06: High-Efficiency Washing Machine Rebate Programs	BMP 06 was revised March 10, 2004; effective July 1, 2004. All previous BMP 06 implementation efforts will count towards meeting agency's Coverage Goal. Please see the current BMP 06 Coverage Requirement report for your agency's progress on this BMP.	...	City of Fairfield has prepared an exemption for this BMP in all prior years, but has offered a \$25 rebate despite the exemption. This has been given out to a small number of HEW purchasers. Our exemption status stands with USBR at this time, but the Solano County Water Agency is preparing to offer a countywide HEW rebate program that Fairfield will participate in.
BMP 07: Public Information Programs	Water supplier has met the coverage requirements for this BMP.	...	City will continue to provide public information outreach on a local and regional basis.
BMP 08: School Education Programs	Water supplier has met the coverage requirements for this BMP.	...	City will continue to provide school education programs.



BMP 09: Conservation Programs for CII Accounts	Water supplier is <b>not</b> currently on track to meet the coverage requirements for this BMP.	...	Solano County Water Agency has just completed a USBR-funded CII program design study and will be implementing its recommendations. Budget is in place to take actions this year and forward.
BMP 11: Conservation Pricing	Water supplier is <b>not</b> currently on track to meet the coverage requirements for this BMP.	...	City water rates <b>do conform</b> to the standards required. Not all FSSD sewer rates are based on flow.
BMP 12: Conservation Coordinator	Water supplier has met the coverage requirements for this BMP.	...	City will continue to have a Conservation Coordinator.
BMP 13: Water Waste Prohibition	Water supplier is <b>not</b> currently on track to meet the coverage requirements for this BMP.	...	City has had a water misuse ordinance in place since 1994. City staff will move forward with an expanded list of single-pass uses.
BMP 14: Residential ULFT Replacement Programs	Water supplier is <b>not</b> currently on track to meet the coverage requirements for this BMP.	...	City has prepared an exemption for this BMP and has never implemented a program based on a lack of cost-effectiveness.



## SECTION 4 – Water Shortage Contingency Plan

The City of Fairfield addresses water shortages through two integrated components. First, we have a standard water shortage contingency plan which is included within this Urban Water Management Plan. Second, Fairfield has entered into the Solano Project Members' Agreement as to Drought Measures and Water Allocation. This agreement allows for the shifting of resources from agricultural to municipal and Industrial uses in the event of drought conditions and storage depletion. This second tier of drought response will provide for a regional approach to drought response.

### 4.1 Stages of Action

The City of Fairfield has developed a four staged response program to deal with water shortages. Each stage consists of specific prohibitions, regulations, fines, penalties, and rate structure to encourage the appropriate level of conservation. Though all four stages have both voluntary and mandatory components, none can be considered a rationing program because they do not strictly limit water use. However, Stages III and IV are most restrictive primarily due to the landscape irrigation component, which prohibits irrigation of any decorative landscaping. The following table outlines the stages of action in the Water Shortage Contingency Plan.

**Water Shortage Response Stages (Table 23)**

Stage	Demand Reduction Goal
Stage I	Up to 15% reduction
Stage II	Up to 30% reduction
Stage III	Up to 50% reduction
Stage IV	50% + reduction

### 4.2 Estimate of Minimum Supply for Next Three Years

**(Table 24)**

Source	Year 1	Year 2	Year 3	Normal
Solano Project				
Entitlement	9000	8500	8500	9200
SID 2 <sup>nd</sup> Exchange	6900	6400	6400	7000
SID 2 <sup>nd</sup> Purch Option	8800	8300	8300	9000
SID 87 JPA	500	500	500	500
State Water Project				
Entitlement	8100	5100	5100	13200
DWR Settlement	7200	4600	4600	11800
Non-Potable				
Rancho Solano	1000	900	900	1000
Paradise Valley	700	600	600	700
Other SID	800	700	700	800
Recycled Water	100	100	100	100
Total	43100	35700	35700	53300



### 4.3 Catastrophic Supply Interruption Plan

Preparation Actions for a Catastrophe (Table 25)

Possible Catastrophe	Summary of Actions
Regional Power Outage	<p>City has installed approximately 2 days of finished water storage. The system is pressurized almost entirely by gravity feed from the reservoirs.</p> <p>Some pump stations have been affected by power outages in the past. The utility has responded by sending portable generators to provide stop-gap pumping power.</p>
Earthquake	City has installed approximately 2 days of finished water storage. The system is pressurized almost entirely by gravity feed from the reservoirs.
Flooding	<p>Communications systems are prepared to allow for distribution system routing and contamination containment. Public communications are established to notify of any water use restrictions.</p> <p>Distribution testing procedures are established to check for contamination restrictions under backflow or intrusion conditions.</p>
Landslide	With two water sources, the City of Fairfield is protected against Putah South Canal being impacted by landslide along the canal-way.

### 4.4 Prohibitions, Penalties and Consumption Reduction Methods (Table 26)

	Normal	Stage I – Recovery Program	Stage II – Drought Response	Stage III – Critical Drought	Stage IV – Emergency Response
<b>RATE STRUCTURE</b>		3 Tiers	3 Tiers	4 Tiers	4 Tiers
<u>Single-Family Rates</u>					
Surcharge/Tier 1	None	25% > 60ccf (approx 750 gpd)	40% > 40ccf (approx 500 gpd)	60% > 28 ccf (approx 350 gpd)	100% > 16 ccf (approx 200 gpd)
Surcharge/Tier 2	None	50% > 80ccf (approx 1000 gpd)	80% > 60ccf (approx 750 gpd)	120% > 40ccf (approx 500 gpd)	200% > 32ccf (approx 400 gpd)
Surcharge/Tier 3	None	N/A	N/A	200% > 60ccf (approx 750 gpd)	300% > 40ccf (approx 500 gpd)
Exceptions/Water Allotments	None	Large Family Large Lot Medical	Large Family Large Lot Medical	Large Family Medical	Medical
<u>Non Single-Family</u>					
Commercial/Industrial	No Volume Increase	3% Volume Increase	7% Volume Increase	11% Volume Increase	15% Volume Increase
Multi-family	No Volume Increase	3% Volume Increase	7% Volume Increase	11% Volume Increase	15% Volume Increase
Irrigation	No Volume Increase	5% Volume Increase	11% Volume Increase	500% Volume Increase	1000% Volume Increase



<u>PROHIBITIONS</u>	<p>Controllable water leaks</p> <p>New installation of single-pass cooling systems using potable water</p> <p>Landscape Irrigation between Noon and 6:00 pm (Daylight savings time only)</p> <p>(Ordinance 94-23)</p>	<p>Normal prohibitions plus...</p> <p>Washing of paved areas except to protect public health and safety</p>	<p>Stage I prohibitions plus...</p> <p>Running water for washing of buildings, etc.</p>	<p>Stage II prohibitions plus...</p> <p>Landscape irrigation (none)</p> <p>Hydrant flushing</p> <p>Construction of new pools, spas, etc.</p>	<p>Stage III prohibitions plus...</p> <p>New construction (without existing permit)</p> <p>Filling of pools, spas, decorative fountains, etc.</p>
<u>REGULATIONS</u>		<p>Washing of vehicles to be done at commercial car wash or with controllable water source such as bucket or hose with shut-off nozzle</p>	<p>Stage I regulations plus...</p> <p>Restaurants serve water only upon request</p> <p>Hotels, etc. to post notice or drought conditions</p> <p>Reclaimed water for construction if feasible.</p>	<p>Stage II regulations plus...</p> <p>Reclaimed water only for construction projects</p>	<p>Stage III regulations</p>
<u>FINES/PENALTIES</u>	(Ordinance 94-23)				
1 <sup>st</sup> Offense	Written warning	Written warning	Written warning	\$50 fine	\$100 fine
2 <sup>nd</sup> Offense	\$25 fine	\$50 fine	\$50 fine	\$100 fine	\$200 fine
3 <sup>rd</sup> Offense	\$50 fine	\$100 fine	\$100 fine	\$200 fine	\$350 fine
4 <sup>th</sup> Offense	\$100 and installation of flow restrictor	\$250 and installation of flow restrictor	\$250 and installation of flow restrictor	\$350 and installation of flow restrictor	\$500 and installation of flow restrictor

Any or all of these components in each stage may be enacted, by determination of the Public Works Director, in order to meet the demand reduction goal for that response stage.



#### 4.5 Analysis of Revenue Impacts of Reduced Sales During Shortages (Table 29)

	Normal	Stage 1	Stage 2	Stage 3	Stage 4
Water Sales (acre feet)	19,620	16,677	13,734	11,772	9,810
% reduction		15%	30%	40%	50%
Revenues					
Water Sales (Base Charge)	24,717,000	21,849,828	17,993,976	15,423,408	12,852,840
Water Sales (Surcharge)	-	747,708.20	2,173,594.67	396,552.24	572,567.18
Connection Fees	3,881,000	4,036,240	4,036,240	4,036,240	0
Meter Sets	280,000	291,200	291,200	291,200	0
Other Income	996,000	996,000	996,000	996,000	996,000
Total	29,874,000	27,920,976	25,491,011	21,143,400	14,421,407
% Reduction		6.5%	14.7%	29.2%	51.7%
Expenses					
Operations	16,031,000	15,253,288	14,475,575	13,957,100	13,438,625
Projects	1,595,000	1,595,000	1,595,000	797,500	0
Debt Service	5,876,000	5,876,000	5,876,000	5,876,000	5,876,000
Total	23,502,000	22,724,288	21,946,575	20,630,600	19,314,625
% Reduction		3.3%	6.6%	12.2%	17.8%
Available for Reinvestment or Reserve	6,372,000	5,196,689	3,544,436	512,800	(4,893,218)

Both volume and meter charges may be raised at each stage by the commensurate amount to make up the deficiency but will remain revenue neutral – not to exceed expenses by more than 2%. City Council action will be required to adjust (lower or raise) water rates if necessary to balance revenues and expenses.

#### 4.6 Draft Ordinance and Use Monitoring Procedure

The City of Fairfield Water Shortage Contingency Plan was adopted in 1994. The updated version of the City's Water Shortage Contingency Plan is incorporated herein. Use monitoring will be done by reviewing daily production records from the City's water treatment plants. This information is readily available and is updated on a daily basis. Weekly reviews of production and storage adjustments will provide adequate detail to monitor the effectiveness of water reduction measures.



## Section 5 Recycled Water Plan

### 5.1 Coordination

Wastewater treatment is performed by the Fairfield-Suisun Sewer District, a special district which serves all territory within the cities of Fairfield and Suisun City. It was formed by an act of the California State Legislature in 1951. The City of Fairfield is active in preparing water recycling opportunities along with the Fairfield-Suisun Sewer District. In 1992 the City prepared the Central Solano Dual Water Systems Master Plan. This document is an outgrowth of the 1987 Fairfield Water Reclamation Study and includes a review of water reclamation regulations, potential non-potable water users and demands, and water quality and soil conditions for agricultural uses. A copy of the executive summary from this report is included as Appendix XXX.

Recycled Water is delivered to the Solano Irrigation District for resale under their non-potable water supply activities. Retailing occurs to a short list of customers within SID and City boundaries. Planned expansion of commercial service will occur as infrastructure is installed to carry the water to extended service points.

### 5.2 Wastewater Quantity, Quality and Current Uses

Table 33

Projected Wastewater Generation in AF		Years			
	2005	2010	2015	2020	2025
Wastewater Collected and Treated in Service Area	19,500	21,600	23,800	26,300	27,400
Quantity that meets recycled water standard	19,500	21,600	23,800	26,300	27,400

The Fairfield Suisun Sewer District operates a state of the art facility that treats sewage to the tertiary level. Plant processes begin with primary treatment to physically separate heavy solids and floatables from the wastewater stream. Solids are separated out and sent to an anaerobic digester where methane is produced to drive a cogeneration facility on the plant site.

After primary treatment the wastewater undergoes secondary treatment. Secondary treatment refers to the removal of organic material in the wastewater by biological means. Microorganisms are pumped into highly oxygenated wastewater. This process allows the microorganisms to degrade the organic wastes. In effect, the microorganisms use the wastes as a food source.

After the secondary treatment, any waste solids are separated and the wastewater stream continues on to a tertiary process of flowing through anthracite filters. Disinfection is accomplished by using chlorination. Dechlorination is the final step in the process stream and the effluent is discharged.



Wastewater is currently disposed of by three methods, 1) release to an adjacent turf farm, 2) pumping into a pressurized recycled water system that currently serves irrigation water to an adjacent landscape maintenance district and an industrial cooling system, and 3) release into the Suisun Marsh. Flows to each use are seasonal and are controlled by water release permits.

(Table 34)

Disposal of Wastewater (non-recycled) AF/Yr				Years		
Method of Disposal	Treatment Level	2005	2010	2015	2020	2025

(Table 35a)

Recycled Water Uses – Actual AF/Yr		
Type of Use	Treatment Level	2005 AF/Yr
Agriculture – Turf Farm	Tertiary	100
Landscape	Tertiary	100
Wildlife Habitat / Wetlands	Tertiary	19,260
Industrial	Tertiary	40
Total		19,500

### 5.3 Potential and Projected Use, Optimization Plan with Incentives

Recycled Water Uses - Potential AF/Y (Table 35b)

Type of Use	Treatment Level	2010	2015	2020	2025	2030/Opt
Agriculture	Tertiary	200	200	200	200	200
Landscape	Tertiary	360	960	2,160	2,360	2,500
Wildlife Habitat Wetlands	Tertiary	21,000	22,600	23,900	24,800	25,400
Industrial	Tertiary	40	40	40	40	100
Other	Tertiary					
Total		21,600	23,800	26,300	27,400	28,200



Explain the technical and economic feasibility of serving the potential uses listed above.

The City of Fairfield is active in preparing water recycling opportunities along with the Fairfield-Suisun Sewer District. In 1992 the City prepared the Central Solano Dual Water Systems Master Plan. This document is an outgrowth of the 1987 Fairfield Water Reclamation Study and includes a review of water reclamation regulations, potential non-potable water users and demands, and water quality and soil conditions for agricultural uses.

Ongoing agreements exist between the Fairfield-Suisun Sewer District, the City of Fairfield, and Solano Irrigation District for use of the effluent from the treatment plant.

These use increases will be driven by the installation of capital infrastructure to allow distribution of the recycled water. A key piece of this infrastructure will occur when Beck Avenue is reconstructed. This will be driven by development needs over the course of time.

#### Projected Future Use of Recycled Water in Service Area -- AF/Y (Table 36)

Type of Use	2010	2015	2020	2025	2030/0pt
Agriculture	200	200	200	200	200
Landscape	360	960	2,160	2,360	2,500
Wildlife Habitat	21,000	22,600	23,900	24,800	25,400
Wetlands					
Industrial	40	40	40	40	100
Other					
Total	21,600	23,800	26,300	27,400	28,200

#### Recycled Water Uses -- 2000 Projection compared with 2005 actual -- AF/Y (Table 37)

Type of Use	2000 Projection for 2005	2005 Actual Use
Agriculture		100
Landscape		100
Wildlife Habitat		
Wetlands		
Industrial		40
Other		
Total		240

#### Methods to Encourage Recycled Water Use (Table 38)

Actions	AF of use projected to result from this action				
	2010	2015	2020	2025	2030/0pt
Financial Incentives	In Place	In Place	In Place	In Place	In Place
Capital Improvs	500	600	1,200	200	200
Total	500	600	1,200	200	200



## **Encouraging Recycling**

The City has put into place a rate structure which encourages use of recycled water and has structured the availability and incentives so that they complement the alternative water sources available in Central Solano County. Under a recently adopted ordinance the City provides for Special Landscape Irrigation rates (volume only), and Reclaimed Landscape Irrigation rates. These rates are respective discounts of 13% and 20% of standard volume charges for irrigation and general service accounts. The Special Landscape Irrigation class has been in place for several years and is intended to provide a discount to those who are willing to enter into a contract to receive recycled water when it is available and distribution facilities are built to provide the water. There are a handful of such accounts at this time. The Reclaimed Landscape Irrigation class has just been put into effect as distribution facilities to serve City of Fairfield customers were installed in 2002.

These financial incentives and expanding capital facilities provide impetus to expansion of the recycled water system uses in the City of Fairfield and the expansion of water resources to the community.



## Section 6 Water Quality Impacts on Reliability

Current & Projected water supply changes due to water quality -- percentage (Table 39)

Water Source	2005	2010	2015	2020	20252030/opt	
Solano Project	0%	0%	0%	0%	0%	0%
State Water Project	0%	0%	0%	0%	0%	0%

This assumes offsetting adjustments to water quality standards and improvements to treatment technologies. The cost of treatment may, in fact, be impacted by increasing treatment standards.

Water Quality is a critical issue in relation to water supply. The City of Fairfield water treatment facilities have had substantial impact on our ability to treat water to increasing standards of finished water. Since our existing sources are surface water which has not been compromised in any significant way, water quality is anticipated to have no impact on source reliability.

Impacts of the new water rights application on water quality have been judged to be negligible. Added entitlements needed to meet water demand in the City of Fairfield have been thoroughly analyzed under the most recent water rights application.



## Section 7 Water Service Reliability

### 7.1 Projected Normal Water Year Supply and Demand

Projected Normal Water Year Supply -- AF/Y (Table 40)

	2010	2015	2020	2025	2030/opt
Supply	53,000	54,100	55,800	56,400	56,700
% of Normal Year	100%	100%	100%	100%	100%

\* from Table 9. Base year for Normal water year

Projected Normal Water Year Demand -- AF/Y (Table 41)

	2010	2015	2020	2025	2030/opt
Demand	33,900	37,900	41,500	45,200	47,100
% of Year 2005	122%	136%	149%	163%	169%

Projected Normal Year Supply and Demand Comparison -- AF/Y (Table 42)

	2010	2015	2020	2025	2030/opt
Supply Totals	53,000	54,100	55,800	56,400	56,700
Demand Totals	33,900	37,900	41,500	45,200	47,100
Difference (supply minus demand)	19,100	16,200	14,300	11,200	9,600
Difference as % of Supply	36%	30%	26%	20%	17%
Difference as % of Demand	56%	43%	34%	25%	20%

### 7.2 Projected Single-Dry-Year Supply and Demand Comparison

Projected single dry year Water Supply -- AF/Y (Table 43)

	2010	2015	2020	2025	2030/opt
Supply	48,600	49,700	51,400	52,000	52,300
% of projected normal*	92%	92%	92%	92%	92%

\* For projected normal use Table 40

Projected single dry year Water Demand -- AF/Y (Table 44)

	2010	2015	2020	2025	2030/opt
Demand	33,900	37,900	41,500	45,200	47,100
% of projected normal*	100%	100%	100%	100%	100%

\* For projected normal use Table 41



Projected single dry year Supply and Demand Comparison -- AF/Y (Table 45)

	2010	2015	2020	2025	2030/opt
Supply Totals	48,600	49,700	51,400	52,000	52,300
Demand Totals	33,900	37,900	41,500	45,200	47,100
Difference (supply minus demand)	14,700	11,800	9,900	6,800	5,200
Difference as % of Supply	30%	24%	19%	13%	10%
Difference as % of Demand	43%	31%	24%	15%	11%

### 7.3 Projected Multiple-Dry-Year Supply and Demand Comparison

Projected supply during multiple dry year period ending in 2010 -- AF/Y (Table 46)

	2006	2007	2008	2009	2010
Supply	52,440	52,580	42,703	35,416	35,510
% of projected normal	100%	100%	81%	67%	67%

Projected demand multiple dry year period ending in 2010 -- AF/Y (Table 47)

	2006	2007	2008	2009	2010
Demand	29,020	30,240	26,741	22,876	23,730
% of projected normal	100%	100%	85%	70%	70%

Projected supply & Demand Comparison during multiple dry year period ending in 2010 -- AF/Y (Table 48)

	2006	2007	2008	2009	2010
Supply Totals	52,440	52,580	42,703	35,416	35,510
Demand Totals	29,020	30,240	26,741	22,876	23,730
Difference (supply minus demand)	23,420	22,340	15,962	12,540	11,780
Difference as % of Supply	45%	42%	37%	35%	33%
Difference as % of Demand	81%	74%	60%	55%	50%

Projected supply during multiple dry year period ending in 2015 -- AF/Y (Table 49)

	2011	2012	2013	2014	2015
Supply	53,220	53,440	43,465	36,100	36,247
% of projected normal	100%	100%	81%	67%	67%

Projected demand multiple dry year period ending in 2015 -- AF/Y (Table 50)

	2011	2012	2013	2014	2015
Demand	34,700	35,500	30,855	25,970	26,530
% of projected normal	100%	100%	85%	70%	70%



Projected supply & Demand Comparison during multiple dry year period ending in 2015 -- AF/Y  
(Table 51)

	2011	2012	2013	2014	2015
Supply Totals	53,220	53,440	43,465	36,100	36,247
Demand Totals	34,700	35,500	30,855	25,970	26,530
Difference (supply minus demand)	18,520	17,940	12,610	10,130	9,717
Difference as % of Supply	35%	34%	29%	28%	27%
Difference as % of Demand	53%	51%	41%	39%	37%

Projected supply during multiple dry year period ending in 2020 -- AF/Y (Table 52)

	2016	2017	2018	2019	2020
Supply	54,440	54,780	44,647	37,158	37,386
% of projected normal	100%	100%	81%	67%	67%

Projected demand multiple dry year period ending in 2020 -- AF/Y (Table 53)

	2016	2017	2018	2019	2020
Demand	38,620	39,340	34,051	28,546	29,050
% of projected normal	100%	100%	85%	70%	70%

Projected supply & Demand Comparison during multiple dry year period ending in 2020 -- AF/Y  
(Table 54)

	2016	2017	2018	2019	2020
Supply Totals	54,440	54,780	44,647	37,158	37,386
Demand Totals	38,620	39,340	34,051	28,546	29,050
Difference (supply minus demand)	15,820	15,440	10,596	8,612	8,336
Difference as % of Supply	29%	28%	24%	23%	22%
Difference as % of Demand	41%	39%	31%	30%	29%

Projected supply during multiple dry year period ending in 2025 -- AF/Y (Table 55)

	2021	2022	2023	2024	2025
Supply	55,920	56,040	45,490	37,708	37,788
% of projected normal	100%	100%	81%	67%	67%

Projected demand multiple dry year period ending in 2025 -- AF/Y (Table 56)

	2021	2022	2023	2024	2025
Demand	42,240	42,980	37,162	31,122	31,640
% of projected normal	100%	100%	85%	70%	70%



Projected supply & Demand Comparison during multiple dry year period ending in 2025 -- AF/Y  
(Table 57)

	2021	2022	2023	2024	2025
Supply Totals	55,920	56,040	45,490	37,708	37,788
Demand Totals	42,240	42,980	37,162	31,122	31,640
Difference (supply minus demand)	13,680	13,060	8,328	6,586	6,148
Difference as % of Supply	24%	23%	18%	17%	16%
Difference as % of Demand	32%	30%	22%	21%	19%

Projected supply during multiple dry year period ending in 2030 -- AF/Y (Optional)

	2026	2027	2028	2029	2030
Supply	56,460	56,520	45,830	37,949	37,989
% of projected normal	100%	100%	81%	67%	67%

Projected demand multiple dry year period ending in 2030 -- AF/Y (Optional)

	2026	2027	2028	2029	2030
Demand	45,580	45,960	39,389	32,704	32,970
% of projected normal	100%	100%	85%	70%	70%

Projected supply & Demand Comparison during multiple dry year period ending in 2030 -- AF/Y  
(Optional)

	2026	2027	2028	2029	2030
Supply Totals	56,460	56,520	45,830	37,949	37,989
Demand Totals	45,580	45,960	39,389	32,704	32,970
Difference (supply minus demand)	10,880	10,560	6,441	5,245	5,019
Difference as % of Supply	19%	19%	14%	14%	13%
Difference as % of Demand	24%	23%	16%	16%	15%